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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

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APRIL, 1941

Vol. 94, No. 4

Busy London Firemen Find Time to Stage an Impressive Display — See Story Inside.

MAN! WHEN YOU REALLY HAVE THEM ISN'T IT A BIG THRILL?

MODERN FIRE PREVENTION *demands modern methods. INDIAN FIRE PUMPS are the most up-to-date means of stopping smaller fires before they spread. Equip your department with these high efficiency, low cost pumps that do triple duty day after day.*

RUST PROOF TANK— CARRIES BY HAND OR ON THE BACK

UNBEATABLE! Just as INDIAN FIRE PUMPS are unbeatable for taking care of aggravating small fires. No ruinous acids to damage clothing and furnishings, no expensive recharges—the INDIAN uses only clear water. Whether the call be a roof, room, rubbish, grass, partition, or any of dozens of other small fires — just grab an INDIAN and start pumping. *You'll be amazed at the knock out power of this great fire fighter.*

and ANOTHER THRILL IS THE WAY

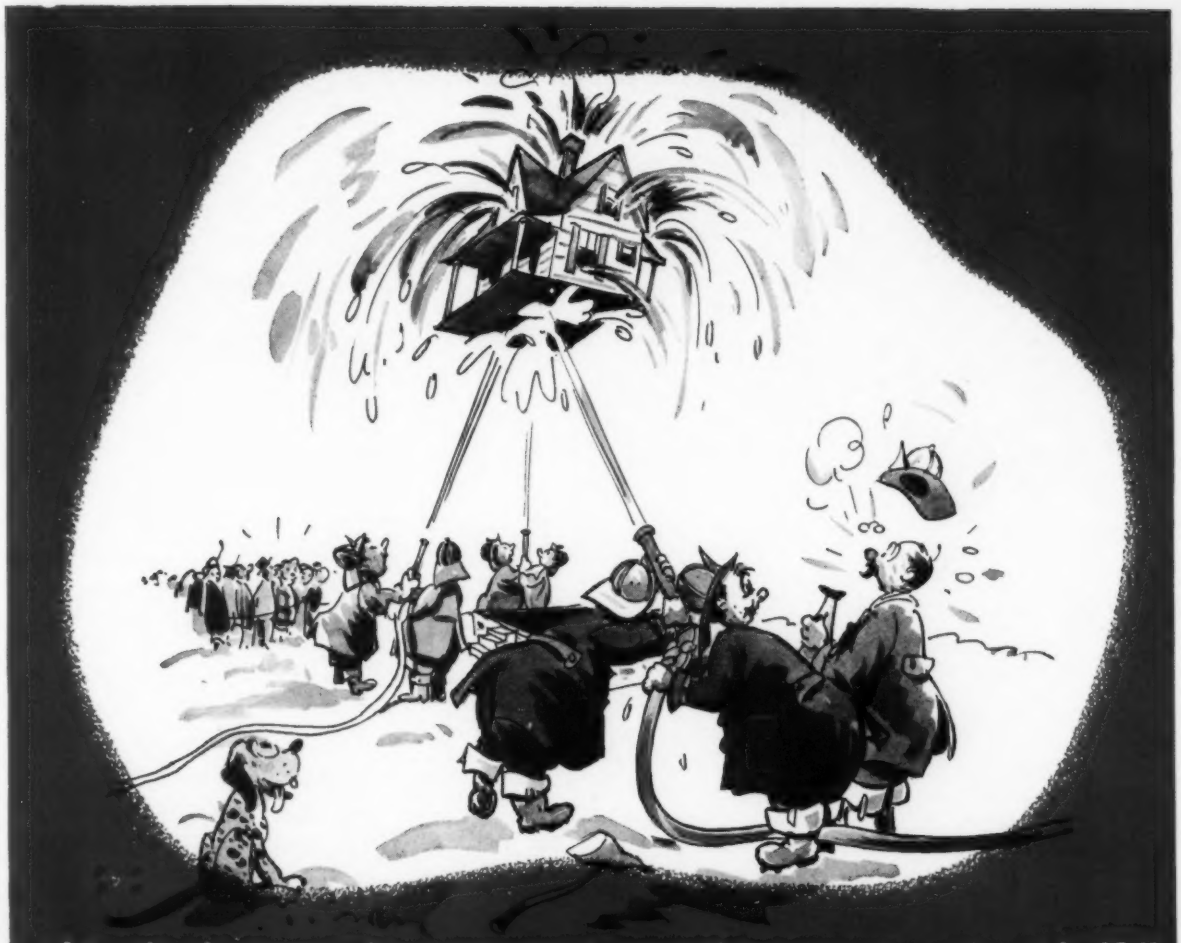
PATENTED

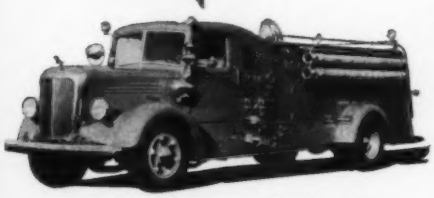
INDIAN *Fire Pumps*

DO A JOB!

Watch the strong, pressure stream drive right to the base of the flame. Notice how the men get around quickly, climb ladders, arms free. Observe the confidence they have in INDIANS to put out fires which formerly took hose lines. Fire departments will use more INDIANS this year than ever before. As one chief says: *"They are the answer to a fireman's prayer."* Send for a copy of our new catalog.

D. B. SMITH & CO. 406 Main St., UTICA, N.Y.





Type 85, 750 Gallon centrifugal pumper with flood light equipment, a special cab and room for 2,000 feet of hose.

WHEN the lines are laid out from a Mack Pumper, officials and firemen know they can count on that Mack to keep the pressure up until the last spark is dead. It is generally acknowledged that Mack is unsurpassed in pumping power and stamina—and road performance, as well.

We feel that Mack quality is directly traceable to the extremely exacting standards under which Macks are manufactured. Vital parts—made in *Mack* factories—are made to remarkably close tolerances and of the highest quality materials.

And behind the design and production of every part is the knowledge and skill gained from Mack's large-scale research program. Mack resources, the largest in the industry, make this unique program possible.

Mack resources also make available a country-wide network of 70 conveniently located direct factory branches—for extra quick, economical and efficient service.

Write for complete information on this superior fire apparatus today!

The Mack Fire apparatus line includes triple and quadruple pumpers from 200 to 1500 gallon capacity, hose wagons, city service ladder trucks, squad cars—comprising 14 distinct and specialized models. Mack is proud of building the best. We invite comparison. We solicit inquiries.

Mack

MACK MANUFACTURING CORPORATION, FIRE ENGINE DIVISION, NEW YORK, N. Y.

FIRE ENGINEERING

A Consolidation of Fire and Water Engineering, The Fire Engineer and Fire Protection

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FRED SHEPPERD
Editor
N. N. WOLPERT, *Assistant Editor*

Never Too Old!

A COPY of FIRE ENGINEERING seems to be never too old to be of interest and value. For instance, we have just recently received from a Fire Chief in New Jersey an inquiry regarding several important items, clipped from a copy of FIRE ENGINEERING more than five years old!

● While it is true that much of the information printed in these pages is of lasting value, it is rather the current up-to-date information regarding present-day practices and equipment that we believe you will find most helpful.

● In these hectic, war-torn days, no fire official can afford to get "behind the times," and FIRE ENGINEERING becomes more important than ever before for keeping you posted on modern methods and modern equipment.

The Publishers

FIRE ENGINEERING

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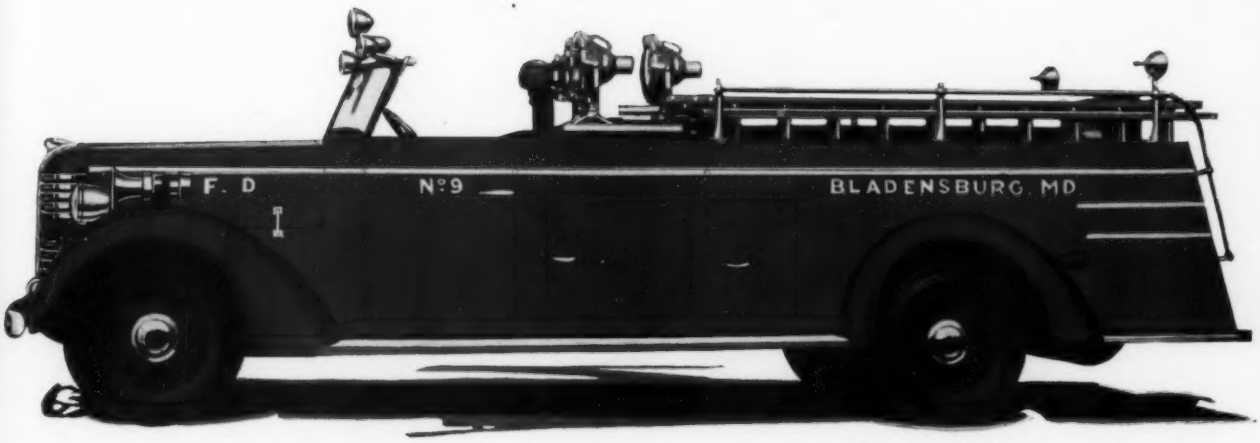

Buffalo Better-Built 500 gallon triple combination, open seat type. For details of improved construction, See Page 191.

SUPERIOR

FIRE APPARATUS

BUFFALO FIRE APPLIANCE CORPORATION

BUFFALO . . . . NEW YORK

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Protect Your Equipment Against Flats and Blow-Outs—Switch to B. F. Goodrich Seal-o-matic Inner Tubes

THE PERFECTING of the famous "Self-Healing" Inner Tube for trucks and heavy equipment, is great news for fire departments. Streets are often littered with glass and nails and there's no time for tire failure.

That's why so many fire departments are adopting this maximum protection against blow-outs and flats both—and piling up convincing records of longer tire mileage, of drastically reduced rubber costs.

Take advantage now of the special bargain "change-over" deals for new equipment—at B. F. Goodrich Silvertown Stores and many Goodrich Dealers.

**Names and addresses furnished on request. Many other amazing experiences in latest Seal-o-matic booklet . . . ask for it!*

Switch to B.F.Goodrich FIRST IN RUBBER

B.F.Goodrich Seal-o-matic

THE 2-WAY SAFETY TUBE THAT "HEALS ITSELF"

IT SEALS WITH NAIL IN—

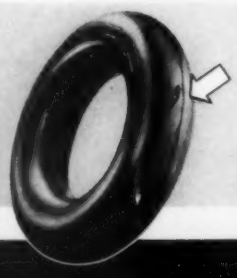
Seal-o-matic lining of secret-formula rubber works almost as if it were alive. As nail goes in, this lining closes in to form a tight seal around it. With tire and tube pierced like this, cars have kept going hundreds of miles!

IT HEALS WITH NAIL OUT—

As object is withdrawn "Self-Healing" lining works into hole—"heals" almost like the human body, only so fast the air hasn't time to escape. In World's Fair tests, one tube ripped by 3-inch spikes 189 times—still stood up!

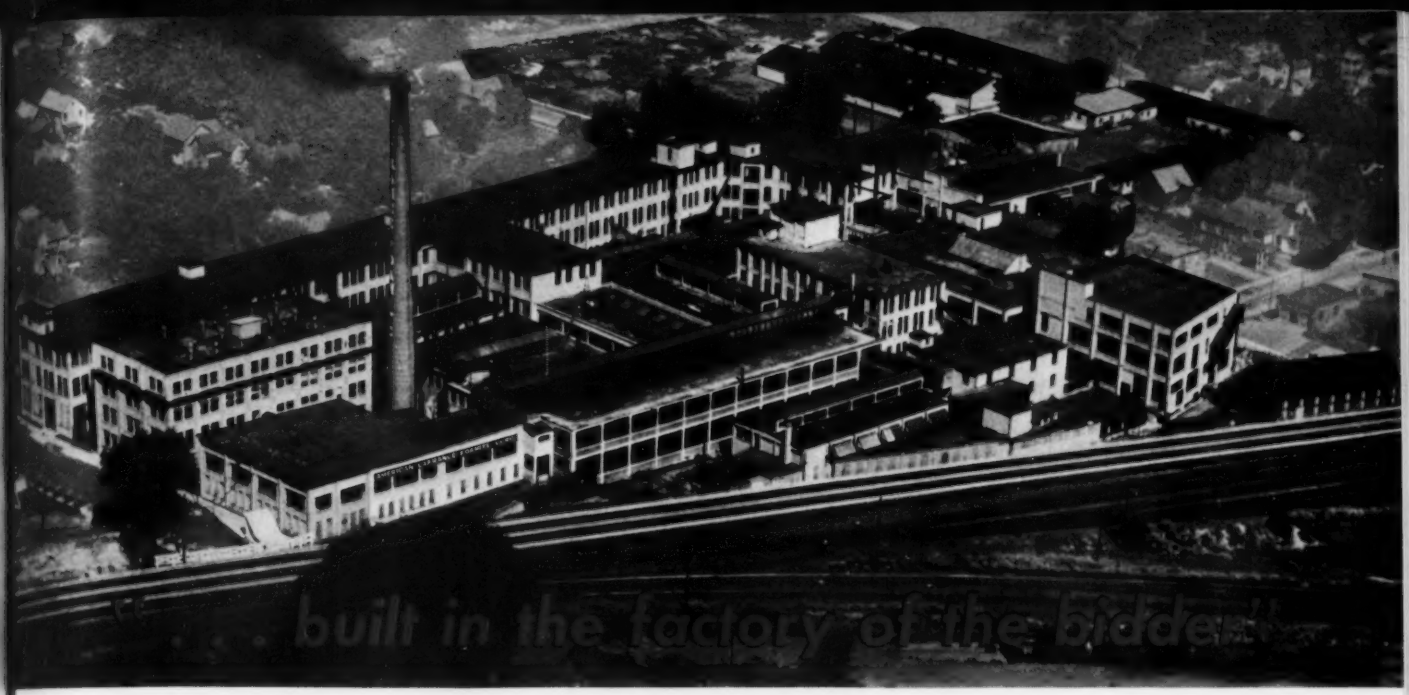
HEALS EVEN BIG RIPS THAT COULD MEAN BLOW-OUT!

Photo shows big knife-gash—"Self-Healed!" Special black rubber—60% stronger than ordinary tubes, for extra blow-out protection . . . toughened and made extra heat-resistant with DURAMIN—just like Goodrich Silvertown Tires. It's built round, like a tire, too—never sold flat to be blown up and weakened by stretching.



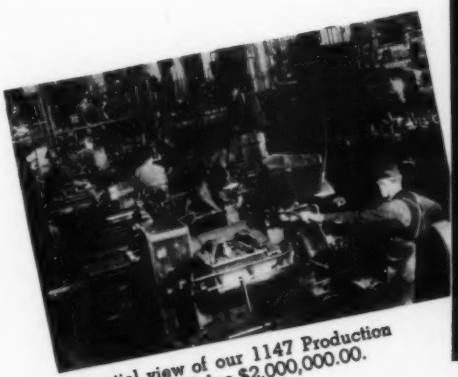
B.F.Goodrich Seal-o-matic Inner Tubes

FOR PASSENGER CARS — FOR LIGHT AND HEAVY TRUCKS



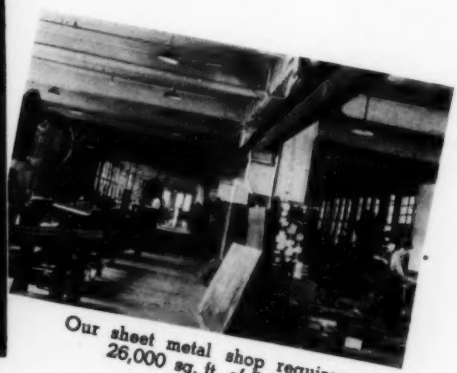
No idle phrase, but the mark of a judicious purchaser of MOTOR FIRE APPARATUS. You too, should have this safeguard in YOUR specifications. It is your insurance of maximum service life for the equipment you are purchasing.

Above is an aerial view of the
FACTORY OF AMERICAN-LaFRANCE-FOAMITE CORP.
at ELMIRA, N. Y., U. S. A.
It covers 16 acres with 375,000 square feet of manufacturing floor space.



A partial view of our 1147 Production Machines. Value $2,000,000.00.

16 Inspectors check from raw material to the finished fire engine.



Our sheet metal shop requires over 26,000 sq. ft. of floor space.

The complete resources of this factory
are devoted exclusively to engineering and manufacturing
THE WORLD'S FINEST FIRE FIGHTING EQUIPMENT

May we assist you with your fire defense problems?

AMERICAN-LaFRANCE-FOAMITE CORPORATION

ENGINEERS and MANUFACTURERS
ELMIRA, NEW YORK, U. S. A.

ALL FIRE CHIEFS COME FROM MISSOURI!

Yes, it seems that all fire chiefs come from Missouri, because they are the most critical and smartest buyers in the world. The fire protection officials of America not only must be *shown*, but everything must be *proven* right to them beyond the slightest doubt.

We of the E&E Manufacturing Company bear this strongly in mind upon introducing our portable fire escape—the B-E EVACUATOR. It is a product ready to *show* it's many merits and *prove* itself the answer to many fire safety problems heretofore unsolved. It's a dependable portable fire escape. The B-E EVACUATOR will *quickly* and *safely* evacuate persons trapped on upper floors and roofs of burning buildings—with a *minimum of man power.*

Familiar with the various worthless "gadgets" that have been offered to the fire protection profession in the past and present, we have spared no expense in the thorough development of the B-E EVACUATOR. WE KNOW IT IS NOT JUST A "GADGET"! It was invented by a *fireman!* It was developed along the *suggestions of men active in the fire protection field!* Repeated tests have *shown* its worth and *proven* its practicality!

Two models are offered—the B-E EVACUATOR for use with ground ladders—the B-E EVACUATOR for use with aerial ladders.

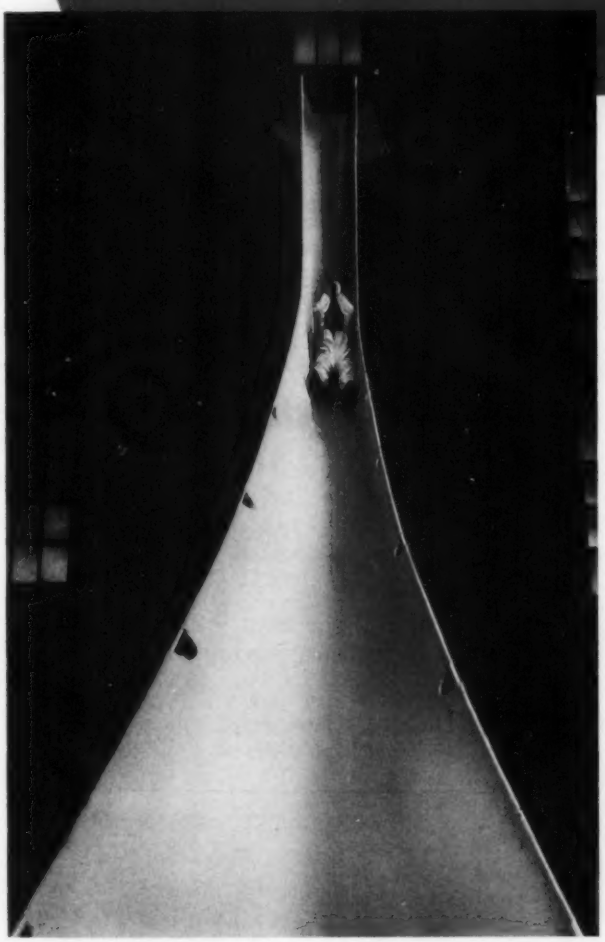
Whether you come from Missouri or any other one of the forty-seven states in the union, write for the literature describing the B-E EVACUATOR. After you've looked it over shoot us a line and we'll gladly *show* and *prove* our contentions with an actual demonstration of the B-E EVACUATOR—in your own town—without obligation to you! WRITE US TODAY!

E & E MFG. CO.
BURKE — ELWOOD
EVACUATOR
PATENTED
DETROIT
MADE BY
MASTER CRAFTSMEN

E & E MANUFACTURING CO.
2970 WEST GRAND BOULEVARD
DETROIT, MICHIGAN

THE B-E EVACUATOR

1. The B-E EVACUATOR is *instantly* adjustable to ANY window and to most roof parapets.
2. Speed of descent is controllable.
3. Fabric is FIRE and WATERPROOF.
4. ABSOLUTELY SAFE—body positively cannot fall out of chute.
5. Two men can hold bottom easily.



The above illustration shows the compactness of the B-E EVACUATOR. This model is for use with ground ladders—for vertical distances up to 50 feet. It can *easily* and *quickly* be carried by ONE fireman up a ladder. Its frame work is of Chrome-Molybdenum steel tubing—gas welded—Cadmium plated to prevent corrosion. Models of the B-E EVACUATOR for aerial ladders also available.

We haven't enough space to give all the amazing advantages of the B-E EVACUATOR, which are fully covered in our literature. Send for your copy TODAY!

BURKE — ELWOOD EVACUATOR PATENTED

MADE BY MASTER CRAFTSMEN

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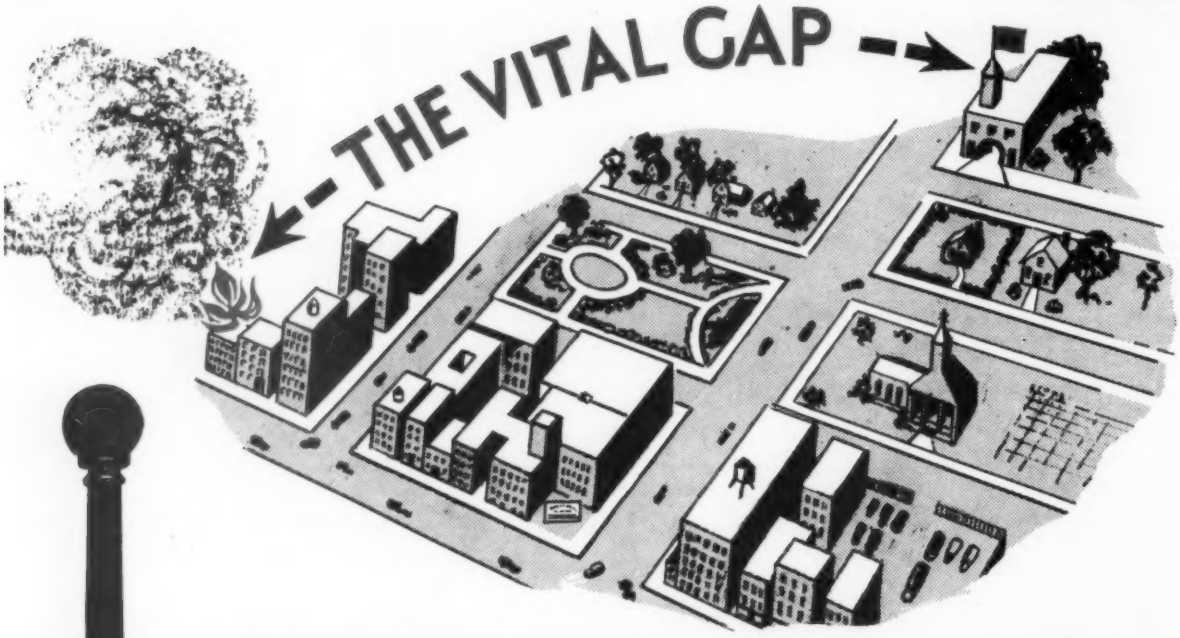
DETROIT, MICHIGAN



Three-Fold Fire Alarm Box on Type U1000-6 Pedestal

BETWEEN THE DISCOVERY OF THE FIRE AND ARRIVAL OF APPARATUS

Can be shortened by installing more and conspicuously located alarm boxes . . .

Seconds and minutes lost in a fruitless search for an alarm box can be the means of a small, easily-controlled fire becoming a major conflagration. Many fires in the beginning can be extinguished with one small stream of water but unchecked have been known to increase 50 times the original size within a few minutes.

Records show that practically every conflagration, and most fires involving the loss of life—and property losses of $1,000.00 or more—have been the results of delayed alarms.

Gamewell surveys indicate that a "Box-a-Block" in congested, high value districts are the minimum of efficiency. In residential districts they should be no fewer than one every 500 ft.

"There is practically no city where there are enough fire alarm boxes."—U. S. Chamber of Commerce. Check the alarm box situation in your community and, if this statement applies, then ask the cooperation of the Gamewell engineers.

Make the Three-Fold Fire Alarm System your city's "first line of defense against Fire!"

THE GAMEWELL COMPANY

NEWTON UPPER FALLS, MASSACHUSETTS

FIRE ENGINEERING

APRIL, 1941 VOL. 94. NO. 4

With the Editor

What Size Trailer Pumps Looking forward to defense against possible incendiary air raids, as this country becomes more actively a participant in the European war, many Fire Chiefs are checking up on trailer pumps.

The proper size for such pumps constitutes as unsolved problem as yet.

Commissioner J. J. McElligott of New York feels they should be of not less than 250 gallons per minute capacity at 120 pounds pressure. But in England, trailer pumps with capacities as low as 100 gallons per minute at 80 pounds pressure are being built and seem to fill a local need in a satisfactory manner.

Were it merely a matter of specifying the size and getting a unit proportional in performance, weight and cost to the larger units, the problem would be a simple one. But it's not that easy.

With the exception of those concerns who are already building small pumping units, and whose output is limited, manufacturers would have to start from scratch.

Units of 250 gallons per minute capacity, such as would be built in this country from motors and pumps readily available in quantity, would probably weigh but little less than the 500 gallon ones; they might cost nearly as much.

A Ford motor, for example, can drive a pump discharging 500 gallons per minute at 120 pounds. A motor of half its power weighs more proportionally. To design a unit to deliver 250 gallons per minute at 120 pounds pressure, and employing parts already available in quantity, would require, in at least one instance a train of gears to step up speed of single stage impeller. An alternative would be to use two stages, as in the 500 gallon pump.

Either plan would increase the cost of the machine as well as increasing its weight.

When speed is required in turning out a large number of units in the smallest possible time, the use of presently available motors and pumps would be in order.

Thus the solution of the problem may be in counting on the 500-gallon units for meeting the greater part of the demand, and the use of such smaller units, as can be provided promptly, for the balance.

Priority for Fire Apparatus The letter to Mr. E. R. Stettinus, Jr., Chairman of the Priorities Board, published elsewhere in this issue, speaks for itself. That motor fire apparatus manufacturers have not been granted priority for motors and equipment seems incredible; nevertheless that is the case.

It is hoped that Mr. Stettinus will see the justice of the request made him, and that he will grant the priority asked for metals and machinery required in motor fire apparatus manufacture.

Fred Shepperd

Roof Falls and Kills 13 Firemen

Loaded With Snow, Roof of Theatre in Brockton, Mass., Crashed During Fire and Caused Many Deaths

By Staff Correspondent

TRAPPED beneath a veritable avalanche of blazing timber, twisted steel and debris, thirteeen firemen were killed and twenty-one other members of the Brockton, Mass., Fire Department seriously injured while combating a fire at the Strand Theatre building in the Bay State shoe city early Monday morning, March 10.

Roof of Theatre Falls

What at first appeared to be an ordinary fire was quickly transformed into a major disaster, when suddenly, and without the slightest warning, there was a roar of crashing timber and the grating of steel as the roof of the building came thundering down burying the fire fighters beneath it.

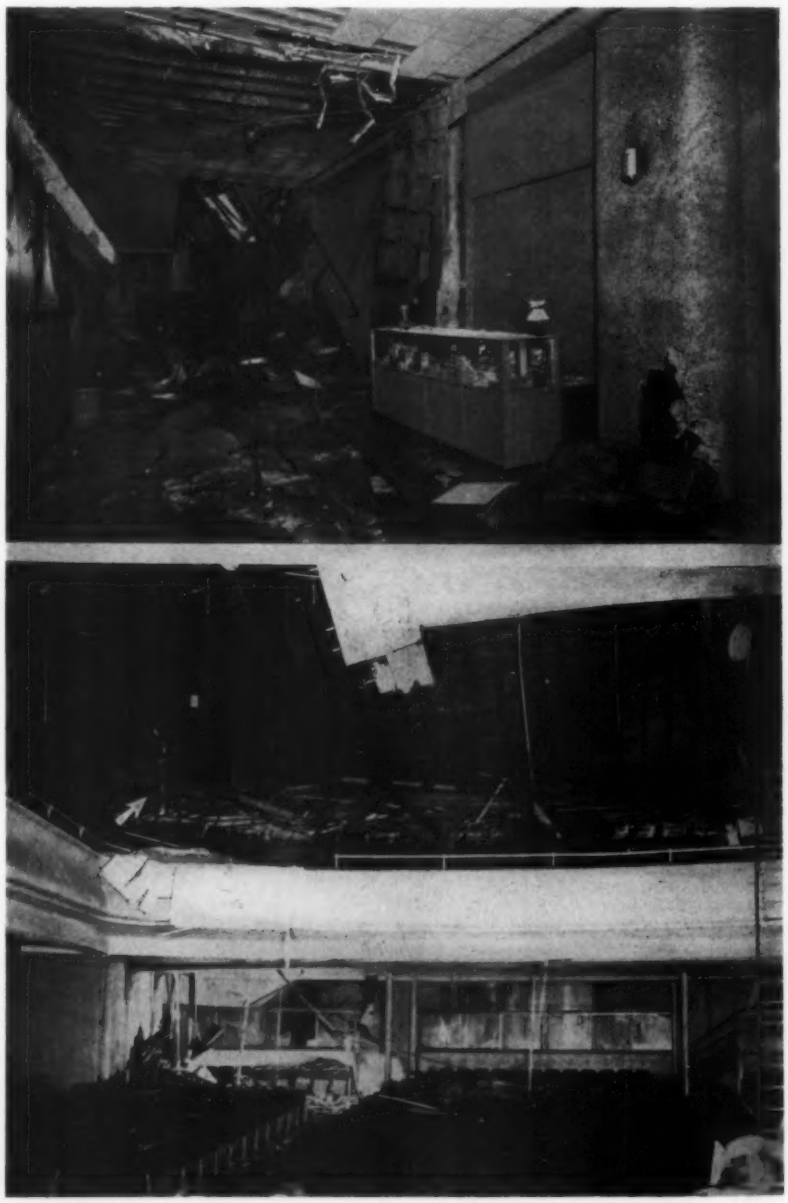
Although shocked and stunned, heroic fellow firemen, aided by police and civilians, rushed into the building and with utter disregard for their own safety removed the dead and injured. Many firemen spurred on by the agonizing cries of their trapped comrades, time and again endangered their own lives until they were forcibly restrained from crawling under the tottering ruins, for fear that the toll of life would be increased.

Nearly Every Company Suffered

Practically every company of the Brockton Fire Department was hit by the disaster, Squad A, of the Central station, having one shift entirely wiped out. In addition to taking a toll of thirteen lives, the fire left thirteen widows and twenty-six bereaved children.

The fire itself broke out in the Strand Theatre building, a well known landmark. It was discovered by a caretaker shortly after midnight, less than two hours after a crowded audience had left the building. The cause of the fire has not been ascertained. When the fire department arrived in response to the first alarm, the flames had gained considerable headway and a second alarm was sounded as a precautionary measure because of the locality.

The spread of the fire appeared to have been checked by quick work and



After the Fire Was Over and the Dead Had Been Removed
Upper, stairway where several of the firemen were trapped. Lower, arrows indicate where firemen were killed when roof collapsed.

appeared under control when flames suddenly broke through one corner of the roof. This looked like any other development that goes with an ordinary fire. The vent afforded an opportunity for men to enter, and companies were ordered in with lines to attack the seemingly small amount of flames from vantage points in the balcony. Then without warning the crash occurred.

Pinned beneath the wreckage the firemen had no chance to escape, so sudden was the collapse. Some clear of the falling roof leaped over the balcony rail and fell injured on the seats below. Flames which flared up after the crash licked at rescuers as the fire burned the trapped victims.

Rescue Work Started at Once

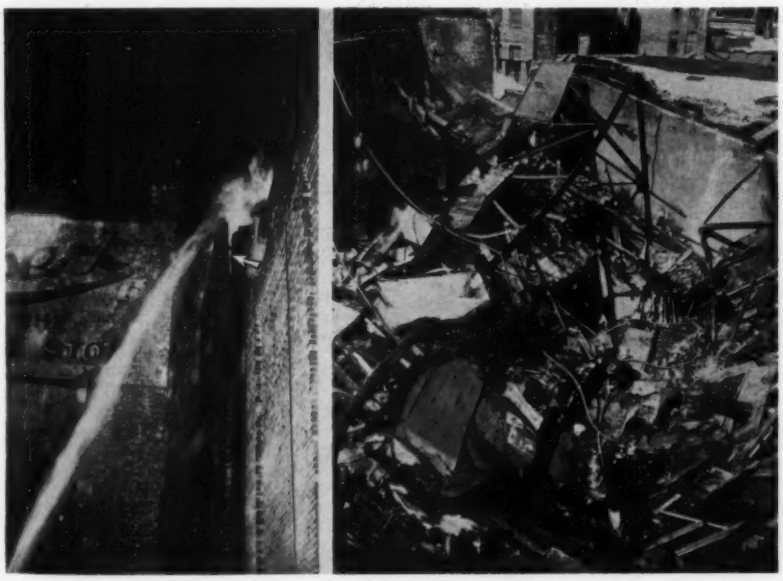
Great excitement followed the crash but there was no panic as rescue work proceeded most orderly. Heroically, the surviving firemen went about the task of rescuing their comrades. Police, doctors, nurses and ambulances were quickly mobilized. Chief Frank Dickenson sounded a general alarm and called aid from a dozen nearby communities.

The Brockton Police Department did heroic work in removing the injured and transferring them to hospitals. One officer, Sergt. Timothy O'Brien, who witnessed the crash, saw his brother Daniel O'Brien, a fireman, killed in the wreckage.

The ever ready Massachusetts State Police were called by the Brockton Police Department to assist. Following a disaster emergency call which was broadcast by radio and teletype, men and ambulances were rushed from all barracks within a fifty-mile radius. The State Police, soon on hand, augmented the already exhausted local authorities.

Well Known Fire Officials Inspect the Damage

Chief Dickenson, Brockton, points out the damage to Chief Daniel Tierney, Arlington, now Secretary and a Past-President, I. A. F. C.; Chief Selden Allen, Brookline, Past-President, I. A. F. C.; Superintendent of Buildings Green of Brockton, and Stephen C. Garrity, State Fire Marshal.



Two Interesting Photographs of the Roof Failure

At the left, the arrow indicates the parting of the wall just prior to the collapse of the roof. Right, view after the fire. The arrow indicates the main girder that failed.

Fire departments sent men and apparatus from nearby Abington, North Abington, Stoughton, Easton, Rockland, Bridgewater, West Bridgewater, East Bridgewater, Avon, Randolph, Whitman and Braintree. Not only did these departments aid at the fire and cover in at several stations, but they remained in Brockton to assist the severely crippled department for several days. Also many cities and towns, such as Boston, Arlington, Brookline, Belmont, Taunton, and scores of other places sent their Chiefs to Brockton to offer their services and facilities.

As morning broke after the tragedy the city of Brockton awoke to the terrible realization of the frightful toll of the disaster. Families and relatives of firemen rushed to the scene and to hospitals seeking their loved ones and praying in hope that their own might be safe.

Thirteen Firemen Killed

The staggering toll of the disaster was finally listed at thirteen dead and twenty-one injured.

Brockton streets that were filled with the clamor of shrieking fire sirens, the throbbing of fire engines, the hiss of water, and the crackle of flames during those dreadful early morning hours of Monday were now

silent. A city, and its neighboring communities, mourned.

As heroically as the victims died, relatives bore their great sorrow with amazing fortitude, and after the injured had been given the best of care, everyone turned to the grim task of burying the dead. A plan suggested for a public mass funeral was vetoed

In Memoriam

Chief Frank Dickenson and Deputy Chief Lawrence Lynch, Brockton, Mass., place a wreath on Squad A wagon. One whole shift of this company was wiped out by the accident.

by relatives who wished to tender their last respects to their loved ones in the quiet of their homes.

Relief Fund Started

As the city emerged from the sudden shock of the disaster, a humane public, from the States of Maine to Texas, opened its heart and purse to bring consolation and material succor to relatives of the victims. A Disaster Fund started by the Mayor has passed the $70,000 mark, with contributions still pouring in from all over the country. The Judge of Probate Court has been named Chairman of the Trustees to properly administer the fund. Significant of the generosity of the public as evidenced by many acts was the volunteering of scores to give blood transfusions to aid the injured.

The fire department, greatly crippled, has been aided by all neighboring communities, and on March 17 the Brockton City Council suspended all rules and confirmed the appointment of twelve new men to the fire department.

Chief Frank Dickenson has received thousands of messages of sympathy. He had suffered the loss of his wife by death only a week before the recent disaster. He has been overwhelmed by the country-wide response of the country's fire fighters in Brockton's time of need. For this he is deeply grateful.

TOLEDO MAKES IMPROVEMENTS TO ITS FIRE ALARM SYSTEM

Work Being Carried Out as WPA Project—Changes in Line With Recommendation by National Board

IN an effort to improve the fire, police and traffic alarm system in Toledo, Ohio, a WPA project sponsored by city officials, is substituting an underground system of wiring for the present overhead method.

Most of the circuits being installed provide complete and adequate service for manufacturing districts, and it is planned to extend the system to newly settled suburban districts. Installation of the underground system and elimination of the overhead wires will prevent failure of equipment due to electrical storms, sleet, or damage to supporting poles.

The completed project should relieve many districts of the dangers due to lack of adequate communication lines and traffic signal systems and should allow service of the three divisions to flow uninterrupted in time of any emergency.

Amount of Material Required

The present program will require the installation of 22,879 feet of conduit and cable. A total of 18,766 feet that had been previously installed by the city will have to be relaid in new locations.

To date, nineteen new fire alarm boxes have been installed by the WPA workers, thus insuring better communication with engine houses if fire should break out. The WPA workers have also provided the installation of twelve police call boxes which mean quicker and more frequent contacts with the police dispatcher and thus better service to the community. Pedestals have been placed in thirty-one locations and 113 cable connections have been made.

Total cost of the project, apart from the other utilities under which it operates, is $79,078. The government is providing funds of $42,462 for labor and $21,536 for non-labor. The city will provide $3,994 for labor and $11,086 for material and supplies.

Work covered by the project includes the laying of 28,879 feet of two-inch conduit and 49,766 feet of cable, some of the conduit having been installed previously.

During the eleven-month period, expected to be required to finish the work, the WPA men will use 218 tons of concrete sand, 260 tons of crushed stone, 17,000 common bricks, 220 barrels of Portland cement, 350 Hubbard cable racks, 4,000 board feet of lumber, 350 gallons of gasoline and 480 gallons of kerosene. The government is furnishing 18,766 feet of No. 25 cable, lead-covered conduit, while the rest of the material is supplied by the sponsor. It is estimated that at least eighty-seven manholes will be built or relocated during the operation of the project.

Contingent on whether the city will have funds available, plans are being made by Charles F. Mensing, Assistant Superintendent of the Police and Fire Alarm Department, for the installation of twenty-one miles of conduit by the end of this year. Almost seven miles of the system have been included in plans already submitted to the city for approval by the superintendent's office.

Wiring for Boxes

Estimates on the amount of wiring for police telephone, box, and circuit systems show approximately 998 miles with 242 police alarm boxes, while 654 fire alarm boxes are serviced with 1,001 miles. These figures do not include what probably would be an additional twenty-five miles taken over from Point Place by the city in October of last year. Traffic intersections to the amount of 244 are serviced by some type of flashing signal, Mr. Mensing stated.

A report by J. Fred Madden, City Superintendent of the police and fire alarm system, who is supervising the project in a technical capacity, shows that eighty-five per cent of the wiring system of the city could be underground if the city and WPA continue to provide funds for this type of project.

The work now being carried out is in line with recommendations recently made by the National Board of Fire Underwriters.

Mansfield Reports for Navy Duty

Lieutenant G. O. Q. Mansfield, U. S. N. R., has reported for active duty in the Boston Navy Yard as the Yard Fire Marshal.

Lieutenant Mansfield has had twenty-one years' experience in the office of the State Fire Marshal, Department of Public Safety, Commonwealth of Massachusetts, holding the position of Chief Fire Inspector in the department. He has been a member of the Naval Reserve since 1917, and during the last World War, he was in charge of fire prevention and inspection at all of the Newport, R. I., Naval establishments.

Cincinnati Surveys Alarm System

Wm. F. Franklin of New York City, an alarm system consultant, is making a survey of the fire alarm system underground cables in Cincinnati, Ohio.

Experiences With Unusual Fires

By WALTER W. STEPHEN
Chief, Fire Department, Monsanto Chemical Company, Anniston, Ala.

VERY often a fire officer may, after fighting a fire, note one or more interesting points regarding the situation that existed when his forces arrived, and the steps that were taken to meet the existing conditions.

This is true about most routine or usual cases of free burning fires where

Walter W. Stephen

water is employed as the extinguishing agent, and very much more so when the emergency is complicated by the presence of hazard making materials, chemicals or industrial equipment.

The following incidents are a few of the latter variety, taken at random from the actual and personal experience of the writer. In relating them, it is not contended that the best methods for extinguishing them were chosen, but simply that an available method, in each case, was selected that did work successfully. In each are noted one or more points about the affair that are given for whatever they may be worth.

Alcohol Fire

A volunteer department in a small city, on a date years ago when the apparatus was drawn by horses, was called to a fiercely burning fire in the basement of a brick and joist building occupied by a drug store. Several barrels of alcohol, in this basement, were adding fury to the flames.

The first floor was being flooded by hose lines operating into it from the front and rear, and two more lines were being operated into the rear of the basement, through windows. A fifth line was taken into a rear basement door and fairly close to the seat of the fire.

Holding the nozzle of this line were the Chief of the department and the writer, who was then a seventeen-year-old pipeman in this volunteer department. This was the first chemical fire the writer had experienced. They held the stream directly on the fire with just enough air to breathe, and the heat taking the skin off their faces.

"Stay with it," advised the Chief. "When we get enough water on it, the alcohol will go out."

And after what seemed an interminable period the flames were knocked out before the flames had extended beyond the basement.

"You see," the Chief said, while we were rubbing down the horses some time later, "water will mix with alcohol, and when you get it diluted several times, it will not support combustion."

And that is the point of this incident.

Electrical Fire

This took place twenty years ago. A frame and tar-paper, one-story building holding experimental electrical apparatus was entirely involved by a hot fire that threatened to explode three large transformers that were situated only a few feet away from the flames.

All this was under the roof of a steel frame and sheet-iron building, with a high tension transmission line that carried 44,000 volts of electricity. Insulators holding these wires were broken by the heat of the fire and they fell down on the metal building with a terrific and spectacular outburst of pyrotechnics and electrical sparks.

During several minutes that elapsed before the high tension line could be cut off at the sub-station, which was some distance away, pipemen of the plant department held streams on the fire and on the threatened transformers. They were operating these from a distance of between forty and fifty feet from the blaze, and held their positions with enough electrical current coming through the streams to mildly shock them.

Finally the high line current was cut off, the streams were advanced close to the fire, and it was finished, saving the big transformers and part of the equipment in the building that was on fire.

The point about this case was that department officers and men knew that by operating their streams at a distance so that they would break up into spray before touching anything conducting electricity, they would be safe from harmful electrical shocks. In this case they were working with a very close margin and did feel some of the current.

Carbon Dioxide Reduces Damage

Fire that involved oil drippings in a sheet-metal, warm-air duct was burning throughout this duct where it extended over one story of a hollow-tile, metal-roofed building with wooden floors.

The building was filled with heavy black smoke and for several minutes could not be entered, while the duct was getting hot enough to endanger a wooden floor under which the duct closely passed.

The building was ventilated by opening doors and windows, and the fire was extinguished by flooding the duct with carbon dioxide from four portable twenty-pound CO_2 extinguishers.

The point about this incident was that the use of carbon dioxide prevented water damage to the contents of several large bins of a very soluble and valuable product that were situated under the duct where the fire was located.

Dust Smothers Flame

A quantity of tarry organic material on a waste dump had been ignited and was making a very smoky fire. Near this was a large pile of finely divided waste calcium carbide dust which was inert material.

The dust was being thrown onto the blaze by men using shovels. The dust smothered and put out the fire, similar to sand or any other inert material.

The point about this case was that it was one wherein a material that

under some circumstances (exposure to moisture) may be very hazardous or may produce a hazardous gas, was used to put out a fire in another material that was hazardous because of its flammable character.

Fumes Absorbed by Fog

This is not a case of a fire, but is related to show how very effective the stream from a fog, or vapor, nozzle may be to sweep away and absorb chemical fumes. It became necessary to closely inspect, at short notice, the interior of a large cylindrical tank containing ammonia. This tank, which was placed horizontally and was thirty feet long and eight feet in diameter, was opened by taking off the covers at manholes at each end, after it had been emptied.

It was of course full of strong ammonia fumes, and men working had to wear gas masks.

After the manholes of the tank were opened, a fog nozzle on a line of 2½-inch hose was operated into one end for fifteen minutes.

At the end of that time, it was possible to enter the tank without a mask and breathe comfortably, the water spray having swept out or absorbed and washed away the ammonia fumes.

Handling a Phosphorus Fire

A quantity of phosphorus from a containing tank spilled on the ground. It ignited from contact with the air and was burning fiercely over an area about twenty feet square, threatening a nearby building. A stream from a 2½-inch hose was turned on it, but the solid column of water began splashing the phosphorus and knocking drops of it over everything nearby, where the phosphorus continued to burn.

The line was cut off and a fog nozzle substituted for the play pipe then in use. A spray of fog quickly blanketed the phosphorus and extinguished the fire. The chemical was covered with water and later treated with copper sulphate, which neutralized it.

The point of this case was the action of the vapor stream in covering the burning material without splashing the substances, although the same end might have been obtained by letting water from the solid stream strike near the spot and then flow over it. Results could be obtained by operating the solid stream from a distance so spray from the nozzle would fall on the fire.

Foam and Sprinklers Used

There was a fire in a room in a coal-tar by-product plant. This room was sixty by forty feet and the ceiling was thirty feet high in center. Building was of hollow tile, with metal roof and a concrete floor. It was equipped with sprinklers.

The room contained several distillation units and holding tanks containing a total of 20,000 gallons of benzol. Also on the floor were a number of shallow metal pans holding another flammable material.

A quantity of benzol accidentally escaped from the apparatus on the floor. Flammable fumes went through a wall opening into another room, ignited, and flashed back. Instantly the whole interior of the large room was involved in a fierce fire that broke out all windows and was going up into the air high above the building.

Forty-five sprinkler heads went into immediate operation and the plant fire department, responding with two V-8 hose and chemical trucks, laid three lines of hose from yard hydrants.

One line was laid to the steamer connection of the sprinkler system. Foam generators were operated on the other two lines and foam streams were directed on the fire by pipemen who went in and fought it at close quarters.

Fire was out at the end of seven minutes. Much of it was beaten down by the spray from the sprinklers which protected the still units and benzol holders from being exploded. Fire in flammable material, which seemed to be resisting the water, was put out by the foam streams, although the water was washing the foam away shortly after it fell. The building, with the exception of window panes, wiring and other smaller details, was protected by sprinklers.

The foam streams seemed to be materially effective in the presence of sprinklers in operation.

Also it should be noted that a hose line was laid to a sprinkler steamer connection, and that foam streams were used from other lines. This took much less water away from sprinklers

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Firemen Battle $150,000 Fire in Downtown Chicago

Approximately seventy pieces of apparatus, one-third of the available equipment, a fireboat, and more than 100 policemen were pressed into service as a fire raged through this five-story building in the "Loop" in Chicago, Ill. The building housed a furniture company and a paint company. Firemen had to use the elevated structure as a vantage point to fight the fire, thereby tying up "L" traffic for more than three hours.

When German Raiders Attempted to Set the Entire City of London Aflame

Fighting Blitz-Fires in London

A Narrative of Discipline, Courage and Technique

By a Professional Fire Officer*

THESE were the impressions that I received while fighting London's dockland fire on the night of September 7 and 8. It may prove of interest to the fire service, here and overseas.

The Battle of Britain had ended on August 24 with the crushing defeat inflicted, by the Royal Air Force, on the German day-bombers and their escorts. In this, the youngest of the armed services had covered itself with glory. The night-bombing to which the enemy was driven to resort, began on September 7 and with it came the first severe test of the Auxiliary Fire Service, formed to reinforce Britain's all too-slender professional fire fighting force.

Despite bombing, machine-gunning and all the hazards connected with fire fighting, the A. F. S. thoroughly maintained untarnished the traditions of the British Fire Service, which had trained and fostered the wartime auxiliaries throughout.

Shortly after 17:00, our lookouts reported five large fires, in the east, about twelve miles distant. I went to an observation post and there, in the clear, bright atmosphere of that September afternoon, could see flames leaping skyward accompanied by enormous clouds of dense smoke.

It was an unforgettable spectacle, even for a fire engineer. Experience of large and serious fires, and also of combined fire defense operations in London's dockland enabled me swiftly to realize that a gigantic problem was confronting the fire chiefs in the district that was being set afire by bombs.

Following the dispatch of our fire boat and six of our land pumps, in accord with a regional mobilization order, came a call for the assistance of professional fire officers.

My sector of the London fire region was not affected; the officers and men were capable of defending it in my absence; and, so I decided to volunteer for the duty.

Brave Woman Driver

I was reluctant, however, to take the regular driver of my staff car, a woman volunteer who had been with the brigade prior to the outbreak of hostilities and had driven me during many a raid in our sector of Greater London.

She immediately expressed keen disappointment, and pleaded so much to be allowed to drive me that I consented. I am glad that I did. She behaved splendidly throughout; nothing daunted her. She did splendid work in transmitting messages under fire, and in obtaining refreshments, whenever such were to be had.

For my deputy on the fire-ground, I took an A. F. S. section-officer, and for my messenger, a young regular fireman. I wished, later, that I had included a brigade mechanic in the party, and had put food and drink in the car. Frankly I expected that rations and beverages would be obtainable in the vicinity of the fire ground, either from mobile canteens or from cafes, some distance though they might be from the scene of operations.

A Memorable Evening's Work

I can only tell of what I heard, saw and felt in the various places that I happened to be that memorable night and the following day.

Maybe part of what I am about to state may excite comment, or even contradiction; all I know is that I am putting on paper the salient points of that night as they appeared to me.

The circumstances were such that a complete log could not be kept; only a partial one, and although I have good recollective faculties, yet I cannot guarantee that this plain story of mine contains all that my party, including myself, saw.

It was almost dusk when we left our headquarters station in the L district of

*Reprinted from the February, 1941, issue of "Fire," published in England.

the London Fire Region. The glare from the fires rendered driving lights nugatory. My driver made the car seem to leap over the ground, and soon we were on the Thames Embankment, with only five more miles to go, and heated air from the fire-ground pouring into the car!

At the fire control center, in a county borough in which were the fires, I met two other officers, on a mission similar to my own, and with them I reported to the officer-in-charge. He told us

Some of the Damage Caused in the Central Part of London by Nazi Bombs

that the principal fire officer of the borough, one of the five deputy fire regional officers in the London Region, would like us to meet him at a certain point. On hearing the name of it, we immediately knew that, even in peacetime, it was a danger zone. Because we were strangers, a guide would be detailed to escort us to the Borough Fire Chief.

Face Down for Every One

We were leaving for our posts when someone shouted "Duck!" I had just heard a lightning-like crack followed by a terrific rushing sound, and as everyone appeared to be lying flat, I decided that I also should do so.

I was too late. I was half down in a crouching position, trying to see where the bomb was going to fall, when it crashed on the other side of a nearby block of buildings. The glass scattering in all directions, the fall of brickwork, the breaking of wood, the terriffic crack of the bomb, the trembling of the earth, and the displacement of air gave to me a sickly feeling, and tended to daze me for the moment.

Prior to that occasion I had wondered at the reticence of people immediately following their escape from the explosion of a high-explosive aerial projectile. Now I know that until one has partially recovered from the shock, and can begin to think normally, which only took us a few minutes, one does not want to talk. Except for a cut on the face by a piece of glass to one of the party, we were safe, and entering the car, began our journey. It was but an incident.

The Roads That Were

Road surfaces in many places had been replaced by deep craters or huge mounds of concrete and rubble thrown up by bomb explosions. In some parts, the roads had completely disappeared and it had been necessary to construct rough tracks before fire apparatus could proceed to the points at which it was needed.

This upheaval of road surfaces necessitated numerous detours for our party. Whichever way we turned we could see anti-aircraft shells bursting in the sky, upon which the beams of hundreds of searchlights were focussed.

Yet, so strong was the reflection from the flames, issuing from buildings still distant from us, that the powerful beams from the projectors of the searchlight battalions were, at times, eclipsed by it. Buildings damaged by high-explosive, stood silhouetted in the glare.

Beneath our feet lay tramway rails distorted in all manner of grotesque shapes.

Trolley bus standards bowed towards where the centre of the road had been, and, in places, the wires lay across the track. In others, the wires still in position were festooned with blankets and wearing apparel blown upon them by the blast of high-explosive bombs.

Devastation

All around were damaged shops and dwelling houses. Reflection of the flames on the panes of glass that remained in window frames presented an almost awe-inspiring spectacle, and an illusion of a myriad of small fires. I had seen air-raid damage in my own section, but nothing on a scale approaching this.

At length we reached a viaduct giving direct access to the quarter in which our services were said to be needed. Army sentries stated that they had orders to prevent any vehicle crossing the viaduct because a number of u-x-b's (unexploded bombs) were in the centre of it. A detour, explained the guide, would mean another four miles for us, and, on the principle that the longest way round is sometimes the shortest route to a given point, I decided to make the detour.

We had covered about 400 yards when we were told that further progress was impossible as the roadway had completely disappeared. We were shown another route which proved to consist of quite sixteen thoroughfares absolutely devoid of human life.

Doorways and window frames of buildings that remained gaped at us. There was no sound except the cannonade of anti-aircraft artillery and bursting enemy projectiles.

Later, I learned that the crop of u-x-b's in this area was so heavy that every inhabitant had been evacuated and every policeman and warden withdrawn.

We now found ourselves in a cul-de-sac. Exasperated, I ordered my driver to turn around, and return to the viaduct as speedily as possible.

Route Retraced

Probably, she found a better and quicker route. Anyway, it did not seem so long as the road we had come, and, en route, we met signs of life in the form of trailer pump crews, who, with their appliances, were trying to make the impossible detour. When their senior officer heard of our experience, he decided that the convoy should follow us.

On reaching the viaduct, and on insisting on crossing it, we were blandly told by an Army sergeant that we had two chances. "If those bombs explode," he explained "you either go up or down, and, if you go down, well, you'll be in the pond." The "pond" meant London River.

We had a good view from the top of the viaduct. Huge fires were blazing at every point of the compass; beneath us, lying on their sides in the mud, were four boats well alight, a most impressive sight.

A Great Fire Chief

About 1,300 yards from the viaduct, in what had been a main road, we found the Borough Fire Chief standing a few yards from a crater in the centre of which was a u-x-b. At the moment, I thought he might have chosen some safer rendezvous, for our benefit, if not for his own. I was soon to learn that there were so many u-x-b's in that vicinity that it was beyond human ingenuity to find a really safe spot.

What surprised me, and those with me, was his wonderful sang-froid. As a junior officer I had sat at his feet, so to speak, at many a fire brigade "pow-pow" and had benefited considerably by his advice and his never-failing encouragement of young officers anxious to master the science of fire engineering.

In those days I had known him to possess the courage of his own convictions, and I had always respected him for that. Yet, on meeting him in this bomb-torn waste ringed by numerous fires of the first magnitude, I expected to find him, to say the least, a little disturbed in thought and action. Not a bit of it.

There he stood, firm as a rock, with that same cheerful smile with which, in

days gone by, he had solved for the tyro some complex problem of fire engineering.

In himself, he was a source of inspiration and encouragement to our party.

On my reporting to him, he said:

"Thanks for coming. I want you to take charge of that fire immediately in front of us.

"The tar distillery, over there, is probably beyond all hope, but, I feel you can prevent the fire from spreading to that warehouse and that granary. You will find pumps and crews on the ground and if you want water, you can get it from the Thames 1¼ miles back, by relaying. Now good luck to you."

Two Warehouses Afire

The warehouse and the granary appeared to be well alight, while, at the back of us, as the D. R. F. O. was speaking, was an enormous timber yard alight from one end to the other, and, behind it, two warehouses blazing furiously.

There were still more fires, but what immediately concerned me was the task which had been allotted to me in tones far quieter than I had heard the D. R. O. F. use in the course of debate.

I felt I certainly needed all the good luck which he had wished should come my way. I had seen big fires before, such as four large factories going simultaneously, but on such occasions there had been two or three chief-officers cooperating with the local fire chief and no fractured water mains.

In the complex situation that was facing me, I realiezd that I was the only professional fire officer on the scene and that the moment had arrived when I needed every atom of benefit I had derived from practical experience and from the technical qualifications gained in the Institution of Fire Engineers.

Far from despondent, I began a swift tour of my part of the fire-ground. Stopping here and there, I made rough plans of buildings involved, marked the sites of known delayed-action bombs, water supplies, and so forth. It has to be remembered that I was operating in an area to which I was a complete stranger.

Behind some warehouses, I discovered an oil depot in which were thousands of tons of oil in forty-gallon drums. Adjoining were a number of oil-reservoirs each about one-fourth of the size of an average gasholder.

Tank Cars Fixed on Tracks

Between the blazing buildings, and what had been the road, were four sets of railway lines on which were standing between twenty-five to thirty oil-tankers. To move them farther from the burning buildings was impossible; a bomb had distorted the rails, and so the tankers had to continue as a serious fire hazard.

The best site for a command-post, or field h-q., had been marred by a bomb which might explode at any moment during the next four days, so I had to move my command-post about twenty yards farther down the railway track. This site, on the southwestern side of the fire, afforded a good view of all operations from the road side of the building and of much of the operations on the southern side.

I had two fences cut down and the timbers placed across the rails, ready for the trailer pumps I had ordered up. Immediately these arrived, they were taken over the timbers to a water supply I had found, a small stream, about two feet in depth.

Continuous Attacks

I suspected that this water was the bund for adjoining oil tanks, but whether it was or not did not worry me. It held water, and that was what the pumps needed. It kept them going for the next six hours.

All this time, the enemy had not ceased his efforts to destroy every person and building within range. There was a regular procession of German aircraft overhead, regulated with the precision of a railway time-table in normal times.

Every ten minutes, or thereabouts, another wave of raiders arrived, and with them came sticks of bombs ranging from three to twelve.

Became Expert at Ducking

Some of these bombs fell too near for our personal comfort, but I was as good as the rest at "ducking" by this time.

Soon, I was able quickly to decide whether a bomb could be expected to fall nearby or at a distance which would make "ducking" unnecessary.

With all available pumps at work on good targets, I sent my deputy to a sub-station, about 900 yards distant, with a request for ten more pumps. The demand was supplied and, to my joy, I found the first pump to arrive was in charge of a section-officer of my town's A. F. S.

Conversant with his capabilities, I placed him in charge of the southern side of the building, with information gleaned from the rough maps I had made, as where best to put his pumps and to direct his streams. A little later when I visited him, I found he had fifteen pumps working merrily and five fire fighting streams covering the whole of his side of the structure.

At this juncture I availed myself of the services of a regular fireman of the county borough's brigade, and placed him in charge of operations on the other side of the building. He distinguished himself by the manner in which he strategically placed the men and pumps under his command.

Meantime, my deputy at the command-post was receiving more pumps and crews, about a dozen or more. These were put to work, in series, to relay water from the presumed bund to where it was most needed on the actual fireground. It was now 01:00 of Sunday, September 8. Everything seemed to be going well, and, so far as I could see my own immediate situation was developing favorably. I thereon decided to visit the crews at work.

Little Tokens from the Germans

Hosemen meet while putting out flames in London caused by bombs. Note burning gas from ruptured main, and the sand-bag barriers in the doorways. Even under trying conditions, fires still continue to draw their share of spectators. Note the numbers of those on the sidewalk.

Heat Punishment

It was well that I did, because petrol supplies were running short and one pump had been compelled to cease action from this cause. The need was soon met by the arrival of supply for fifty pumps.

The nozzle men were taking a considerable amount of heat punishment. The fire was so intense that radiated heat seemed to pierce the eyeballs. Covered in sweat, grime, and in some instances, coagulated blood from lacerations of the head and face, the men were absolutely gasping for a drink. The only means to

(*Continued on page 206*)

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

ACCIDENTS ON STREETS FROM GASOLINE TANK TRUCKS

HAVE you ever given some thought to the number of gasoline tank trucks that are on the highways today? The number is particularly noticeable in areas that are remote from railroad or marine centers, for such zones can only be reached by trucks on the highways.

Each gasoline truck is virtually a moving fire brand of the greatest danger. Each truck holds as much as 3,000 gallons of gasoline or more. Should an accident occur, the liquid may spill over as a burning mass and come in contact with considerable property.

In this round table discussion is presented the experiences of many chiefs with this type of accident, and suggested methods of control. The discussion is continued from the previous issue.

Discussion of the Question

Ralph C. Dinkel, Chief, Terre Haute, Ind.: We recently had a collision between a gasoline truck and a pleasure car. The sedan was completely burned and the tank of the gasoline truck also.

I am satisfied that there would not have been any fire if the tank had been securely fastened to the truck. It was not, however, and when it slid off the truck, it burst open and the gas ignited. Not having the tank securely fastened was a violation of the Fire Marshal's ruling, but it is impossible to enforce as there is no penalty.

We used two 2½-inch lines and kept the flaming gasoline from flowing into sewer inlets. By playing these two lines on the flaming gasoline, we diluted it to a mixture that would not ignite again. This accident happened on the outskirts of the city and by the time we sent fog nozzles to the scene we had the fire under control, and did not have to use the fog nozzles. I believe the method we used was the best because if we had extinguished the flames, the gasoline would have been allowed to flow into the sewers undiluted and could have caused further damage to the sewer and possibly to some of the property connected to it.

I believe states should pass laws giving the state fire marshals control over all trucks and trailers carrying gasoline over the highways. This law should be enforced.

William L. Ryan, Chief, Dubuque, Ia.: We have never had any experience with fires involving gasoline tank trucks.

From personal experience I have found that the Du-Gas portable extinguisher is highly efficient as an extinguishing agent. As to avoiding tank truck accident hazards on streets, I believe that such trucks should be required to use streets on which traffic is light, remain off highways going through cities because of the extra heavy traffic and be required to use only tanks and tank equipment carrying the National Board label, thereby reducing the possibility of tank ruptures under crash conditions. All trucks should be forced to comply with the regulations of the National Board regarding conveyors of inflammable liquids.

It is unfortunate that many states are very lax in having suitable laws governing the transportation, sale, storage, etc., of inflammable liquids. I feel that if matters such as these were brought directly to the attention of state legislative bodies, the results would be satisfactory.

George Ferrier, Acting Chief Engineer, Philadelphia, Pa.: Fortunately we have had no accidents with gasoline tank trucks.

About six years ago, on the occasion of a gasoline war, a truck driven by a rival company was attacked by a member of the opposing faction at Second and Spring Garden Streets. The gasoline flowed over the street and ignited. We were able to take care of this condition by using water to dilute the gasoline flowing down the inlet. There was no serious damage other than the truck and loss of gasoline.

Brooks McClure, Chief, Huntington, W. Va.: On September 22, 1939, we had a fire involving a gasoline tank truck. A gasoline truck was filling an underground storage tank. Someone passing by threw a match, thereby igniting the gasoline. The gasoline ran out on the street, spreading the fire to a nearby house and some parked cars.

At this time, the only extinguishing equipment our Department had was the fog nozzle. After some time the fire was extinguished. At the present time we are equipped for such fires with a foamite generator and carbon dioxide extinguishers.

John A. Fisher, Chief, Duluth, Minn.: If gasoline is running towards the catch basin, we use foamite to extinguish the fire. If it is confined, we use spray nozzles. Both methods have proven successful.

There is not very much that can be done to guard against this hazard, unless the gasoline companies are willing to cooperate with the Fire Department and see that all valves and gaskets are kept in first-class condition. Most of the companies are very good in keeping their equipment up to date, but there are always a few who are careless about these details.

Howard Travers, Chief, Baltimore, Md.: On fires involving gasoline tank trucks, we usually stretch lines to each side of the fire and cover exposures. Hose streams are used with spray nozzles to dissipate and wash the gasoline into sewer openings. Operations have been successful.

Firemen should be properly trained and alert to take care of such fires.

Edward J. Green, Chief, Steubenville, O.: Here in Steubenville we have not had any trouble with gasoline leaking from tank trucks.

We have had trucks hit by other autos, but not very much gas was spilled. We spread dirt over the gasoline and washed it into the sewer by opening a hydrant.

Another time a gasoline truck was unloading into an underground tank at a service station with a large garage. This station was located at one corner of the garage with end and side opening on the first floor. The truck carried 3,000 gallons and was to unload 1,500 gallons into the tank. Some gasoline was spilled around the tank and caught fire. The driver jumped on the truck and drove away from the tank, but the blazing gasoline was running out. We stopped the truck on the pavement and flames shot to the top of a two-story building. An alarm was sent in and five different boxes were pulled for this fire. The first company in laid a high-pressure line of 120 pounds and turned it on the truck. The blaze died

HERE IS THE PROBLEM

Have you had any experience with accidents on your streets involving gasoline tank trucks?

If so, did leaking gasoline ignite?

What method of extinguishing fire was employed? Was it successful?

What can be done by Fire Departments to guard against the hazard?

down and the driver shut off the valve.

The fire chiefs of Ohio are working with the gasoline companies and will soon have a state bill prepared. This will give the State Fire Marshal the right to make rules and regulations governing tank trucks. There will be an advisory board composed of fire chiefs, and gasoline company representatives.

Charles Kuhl, Chief, Sioux City, Ia.: We have had accidents involving gasoline tank trucks, but the gas did not ignite.

I do not believe gasoline tank trucks should be allowed in the high value district. They should have certain streets designated for their use.

Luther P. Willis, Chief, Pueblo, Col.: I contend there should be a separate highway for all transport gasoline trucks on the extreme limits of cities. Trucks should not be allowed in any business district.

Edward A. McHugh, Chief, Louisville, Ky.: I believe that an ordinance similar to the "Suggested Ordinance on Flammable Liquids" of the N. F. P. A. should be passed.

James T. Sweeney, Chief, Superior, Wis.: The Superior Fire Department has had no experience whatever with accidents involving gasoline tank trucks. My suggestion to help eliminate this hazard to some extent would be to prohibit such trucks from using the main streets or highways through cities.

Richard Widmann, Chief, Madison, Wis.: Fortunately we have had no fires involving gasoline tank trucks. I believe Fire Departments should be provided with foam and carbon dioxide extinguishers to put out this type of fire.

George W. Hanen, Chief, New Albany, Ind.: In the event that a gasoline transport caught fire, my plan would be to lay lines to protect all exposures as quickly as possible. This should be done while the foam mixer is being put in operation for the extinguishment of the burning gasoline. If it could be done in time, I would have sand dumped to prevent gas from entering sewers.

F. L. Campion, Chief, Fargo, N. D.: I believe laws should be passed to keep gasoline transport trucks off the business streets of cities.

G. R. McAlpine, Chief, Oklahoma City, Okla.: We have had several accidents in which gasoline tank trucks were involved, but fortunately only one of these trucks ignited while the contents were being released. We have had several in which the contents were released due to an accident.

Water was used to extinguish the fire in the truck which had ignited. This was possible due to the small amount of gasoline which had been released and because there was no pressure on the tank. After the fire had been driven away from the point that was leaking, it was smothered with tarpaulin.

We have given considerable consideration to this particular hazard and to methods of extinguishing a fire of this nature. We believe that by using foam the fire could be confined to the source of supply. Something else should be used to block the fire unless carbon dioxide could be applied in quantities sufficient to freeze or cool the contents below the ignition point.

The most important thing to be done to guard against this hazard is to see that the containers used to deliver the gasoline to the city are of the proper size. Secondly, I do not believe that gasoline or liquified gas should be allowed to pass through a city unless it is to be delivered to that city. Thirdly, I believe that all such consignments, delivered to a particular city, should travel on such streets in that city which are designated by the Chief of the Fire Department. Lastly, I believe that after delivery has been made, the tank truck should return over the same route over which it came.

Emil A. Johnson, Chief, Boulder, Col.: We have never had an accident on our streets involving gasoline tank trucks.

We are equipped with fog nozzles, but have never had to use them on a gasoline fire.

A city ordinance provides that no tank cars containing inflammable liquids shall be permitted during the process of transferring same to storage tanks within 100 feet of any building.

Twelve hours during the daytime are allowed for the distribution of gasoline, and it is unlawful to have such a shipment within the city for a longer time. No trucks used for transporting inflammable liquids shall be parked over night within the city except when empty and shall not be stored or parked in public garages except when in there for repair and then only when empty.

Trucks used for the delivery of inflammable liquids are not permitted to park upon the streets for a longer period than one hour, and at no time are they permitted to park when loaded within the fire limits of the city.

Trucks used for transporting inflammable liquids through the city of Boulder must follow routes fixed by the City Manager.

S. J. Flores, Chief, Shreveport, La.: There should be a law passed to prohibit gasoline trucks from driving up and down main streets in cities.

William J. Lutz, Chief, Wilmington, Del.: We had quite an experience when a gasoline tank truck caught fire in the southwestern section of our city. The tank ruptured and the blazing gasoline ran into the street. We used 2½-inch lines with 1¼-inch tips to extinguish the fire.

A recent city ordinancee provides that trucks in excess of 600 gallons capacity shall be divided into compartments, none of which shall exceed 600 gallons capacity. Each tank compartment shall be provided with a suitable operating vent, and in addition thereto venting facilities of such size and capacity as will prevent rupture of the tank from such internal pressure as may be created by exposure fires. Shut-off valves must be provided inside the shell of the tank in the compartment outlet and must be kept closed at all times except when delivering gasoline.

During filling operations, metallic contact must be maintained between the fill pipe and the tank truck.

All trailers must be firmly and securely attached to the towing vehicle by means of suitable drawbars, sup-

(*Continued on page* 196)

HERE IS THE PROBLEM FOR THE NEXT ISSUE

Has your department ever participated in strike riots at industrial plants, and what methods did you use to quell such riots?

What is your personal opinion as to fire departments taking part in such riots?

A Bus Driver Died in This Oil Truck Crash

A bus collided with a truck carrying a load of lubricating oils, and the photograph shows the result. The bus driver died at the wheel of his burning vehicle. As the two cars climbed the hill, the rear of the oil truck swerved and crashed into the bus. Two passengers in the bus escaped with minor injuries.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of March, 1941. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent losses in thousands of dollars.

Month Ending March 31	Loss in Thousands of Dollar
New Orleans, La.—Laboratory of the United States Department of Agriculture, damaged	50
Traverse City, Mich.—Warehouse, damaged..	50
Ottawa, Ont.—Apartments, destroyed.....	115
Pont Viau, Que.—Business establishment, destroyed	65
Marion, Ill.—Goodhall Hotel, destroyed.....	130
Madison, Me.—Business block, destroyed.....	60
Big Spring, Tex.—Manufacturing building, damaged	70
Montreal, Que.—Business building, destroyed	50
Portland, Ore.—Business building, destroyed.	350
Dickson, Tenn.—Oakmont School building, destroyed	65
Sault Ste Marie, Ont.—Railway car shops, destroyed	80
Yorkton, Sask.—Business establisment, destroyed	180
Greenwich, Conn.—Dwelling, destroyed.....	60
Eastport, Me.—Three waterfront buildings, destroyed	50
Brockton, Mass.—Business building, damaged	65
Frederick, Md.—Business building, destroyed.	65
Lowell, Mass.—Bartlett Junior High School, destroyed	170
New Orleans, La.—Warehouse and contents, destroyed	1,000
Irvington, N. J.—Storage building, destroyed	800
Mifflintown, Pa.—Business establishments, garage, apartments, damaged	65
Grangeville, Ida.—Grangeville supply station, destroyed	65
East Jordan, Mich.—East Jordan High School, destroyed	65
West Ossipee, N. H.—Manufacturing plant, destroyed	90
Elwood, Ind.—Business building, damaged....	65
Hicksville, N. Y.—Manufacturing plant, destroyed	65
Salt Lake City, Utah—National Guard armory, damaged	65
Keller, Sask.—Business buildings, post office and residences, destroyed	100
Chicago, Ill.—Garage, loading platform and warehouse, destroyed	450
Princeton, Ind.—Business building, damaged..	100
Lawrence, Mass.—Recreation room and bowling alleys, destroyed	180
Asheville, N. C.—Department store, damaged.	50
Millerstown, Pa.—Hotel, dwellings and theatre	50
Laceyville, Pa. — Business establishments, damaged	80
Logansport, Ind.—Public library, damaged....	80
Covington, Ky. — Manufacturing plant, damaged	50
Monmouth Beach, N. J.—Hotel, destroyed....	50
Chelyan, W. Va.—Business building and apartments, destroyed	80
New Orleans, La.—Oil refining company, damaged	350
Union, Mo. — Manufacturing company, destroyed	50
Montreal, Que.—Business building, destroyed..	180
Toronto, Ont.—Bank building, destroyed.....	200
Bakersfield, Cal.—35,000 barrels of crude oil, destroyed	80
Sparta, Mich.—Department store, destroyed...	80
Conroe, Tex.—Business buildings, destroyed...	100
St. Mary's, Pa.—Railroad engine house.....	80
Portersville, Pa.—Garage, damaged.....	50
Oklahoma City, Okla. — Gasoline plant and warehouse, destroyed	180
Mount Kisco, N. Y.—Business area, destroyed	180
Cardington, Pa.—Furniture factory, destroyed.	50
Valley Falls, R. I. — Catholic Institute, destroyed	50
Bridgeport, Conn. — Hotel supplies company, damaged	80
Moberly, Mo.—Carnival winter quarters, destroyed	80
Upper Darby, Pa. — Furniture manufacturing plant, destroyed	50
Davenport, Ia.—Apartment building, destroyed	80
Lufkin, Tex. — Business establishments, destroyed	50
Winnipeg, Man.—Business building, destroyed	100
Kansas City, Mo. — Manufacturing plant, destroyed	70
St. John, N. B.—Department store and business establishments	200
Sunnyside, L. I.—Business establishments, destroyed	80

Cambria, Cal., Has New Station

Not long ago, Cambria, Cal., completed a new fire station which houses three fire rigs. In accordance with modern trends, when the 'phone rings, the doors open automatically, the clock stops, the lights light and sirens in three different locations blow. The district of the town includes large pine covered areas which necessitates fast action when the alarm is sounded. An area of four square miles having a population of 1,500 is protected. Two men sleep in the fire house at night, but there is no one on duty during the day.

Cambria's New Fire Station

This Month's Cover

Each day some bit of news comes over that helps swell one's admiration for the fine work accomplished by English firemen during the present war crisis.

Even though the firemen in London, England, have to be alert to calls for action, they found time to stage a demonstration of their latest technique in fire fighting.

Spic and span in their uniforms, the men operated two hundred pumps that were lined up for the demonstration. Thousands of brigade and auxiliary fire service men participated in the demonstration. The cover illustration shows the men and the pumps in action.

May Outlaw Fireworks

Rescue Fire Company, Cambridge, Md., recently went on record as favoring passage of Maryland House Bill No. 29, which prohibits the promiscuous sale and use of fireworks within Maryland. The Maryland companies of the Del-Mar-Va Volunteer Firemen's Association, also the Dorchester County Volunteer Firemen went on record as favoring passage of the bill. OTIS SMITH

Conn. Chiefs' Club Has Ladies Night

The first Ladies Night and Christmas Party was celebrated by seventy-five members of the Connecticut Fire Chiefs' Club and their ladies at the Bond Hotel, Hartford, early in January.

President J. S. Pachl, Chief of the New Haven, Conn., Fire Department, presided over festivities which began with a steak dinner. Members of the Connecticut Club were addressed by Chief Hill of Belmont, Mass., Secretary of the Massachusetts Chiefs' Club, and by Chief O'Hearn, Secretary of the New England Association of Fire Chiefs.

Following the entertainment, each lady received as a Christmas gift a silver sandwich tray and server, both trimmed with mahogany handles. It was suggested that a collection be taken up for the "March of Dimes" for infantile paralysis. This was done and a goodly sum was deposited for this cause.

Chiefs Join "Mile of Dimes" at Connecticut Chiefs' Club Gathering

In the picture, left to right, are: Arthur Harris, Deputy Chief at Meriden; Chief Stuart M. Potter, Greenwich; Chief Michael Lawton, Middletown; Chief John Pachl, New Haven, President of the Connecticut Fire Chiefs' Club; D. C. Mercier, Woodbridge, Club Secretary; and Chief W. H. Hill, Belmont, Mass., Secretary of the Massachusetts Fire Chiefs' Club.

Chiefs Hear Varied Subjects

A group of New York State Fire Chiefs met at Albany, N. Y., early in February to hear various subjects on mutual aid by departments, education, legal topics affecting firemen, and co-operation and coordination of departments in relation to the preparedness program.

Old Equipment Exhibited at Annual "Paul Bunyan Parade" in Fort Bragg, Cal.
Just imagine the speedy response to an alarm that could be obtained from this piece of rolling stock. It was just one of the many pieces of antique equipment exhibited by Chief H. G. Kraus and the Fort Bragg, Cal., Fire Department in that city's annual festival.

New Ashford Forms Department

At the 160th annual meeting of New Ashford, Mass., Forrest C. White was elected Fire Chief by the fire department, recently formed.

Deasy Available for Lectures

J. J. Deasy, retired Battalion Chief of the New York City Fire Department and lecturer, author, and consultant on fire fighting strategy and fire department problems, who has been appearing before many volunteer units, is now available to talk before firemanic bodies on tactics and strategy of fire fighting and incidental fire department problems.

Fires Under War Conditions

Methods of fighting fires under war conditions was the principal topic of discussion at the annual meeting of the Connecticut Drillmasters' Association held at Fire Headquarters, Hartford, Conn., on February 11. With a view toward including the material in regional schools in the state this year, the members discussed thermite and other incendiary bombs, and the fire problems they raised in waring countries.

The following officers were re-elected for the coming year: Chief John S. Pachl, New Haven Annex Fire Department, President; Deputy Chief Martin J. Campion, Waterbury, Vice-President; Lieut. George Graham, Bristol, Secretary.

The Executive Committee named was Chief Thomas H. Donnelly, West Hartford, Chairman; Deputy Chief Henry Thomas, Hartford; Herman S. Hall, State Supervisor of Trade and Industrial Education. A luncheon was held following the meeting.

THOMAS F. MANGER.

February Loss $26,102,000

Fire losses in the United States during the month of February, according to an estimate made by the National Board of Fire Underwriters, amounted to about $26,102,000. This is twenty-four per cent lower than the losses for February last year, and one per cent below the losses for January.

Uniforms for Sale

The Riverside Hose Company of Tarrytown, N. Y., has forty-one uniforms for sale. They are the old style, single breasted, high collar uniforms, but are in excellent condition. They have been well cared for and the company is trying to dispose of them because it is the only remaining company in the department without the new style uniform. They have placed no price on them, but will consider any reasonable offer.

Anyone interested may communicate with the chairman of the Riverside Hose uniform committee at Tarrytown.

Hilltop Company Holds Inspection

Hilltop Engine Company, Pocantico Hills, N. Y., was host to many visiting firemen recently at the second annual inspection and parade of the firemen. A buffet supper and refreshments followed later.

The Hilltop Engine Company was organized in 1925. A "jumper" was used for the first fire truck and then a Ford Model T was used as the fire engine until 1938. During that year, a new 600-gallon pumper was used.

Chief Joseph Pellegrino

The company has fifty-two members under the leadership of Chief Joseph Pellegrino.

P. H. Flaherty Dead

Patrick H. Flaherty, first President of the Maine State Association of Fire Chiefs and former Portland, Me., Fire Chief, died recently at the age of seventy-two years.

New York City Firemen Demonstrate Portable Radio Equipment
Firemen Art Meyerson and Sam Harmtuk, who designed the portable radio transmitting and receiving equipment that they are wearing, demonstrate their equipment to Fire Commissioner J. J. McElligott, and Mayor LaGuardia. The sets, which are built in an aluminum case and weigh about fifteen pounds each, are expected to be of great assistance in maintaining communication at large fires.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Keeping Hose Connected; Marking Hydrants

To the Editor:

When picking up hose after a fire during the summer months, should hose be placed back in the box in single sections or should it be coupled up?

In my opinion, it should be coupled up in the event that it has to be used before the company gets back to quarters. Should another call come in after they get back to headquarters, they would be ready to go.

When installing new hydrants, wouldn't it be a good idea to mark the hydrant as to the size of the main to which it is attached? This could be easily done by attaching a small label on the hydrant. This could be made of metal and removed easily in the event the hydrant were moved to a different main. The operator can then see at a glance the size of the main out of which he is pumping.

Answer: If the apparatus of the department is limited, it is better to leave the hose coupled up until reaching the station, where it can be disconnected, drained, washed and dried.

This performance would keep the hose in active service just a little longer; it would be available during the period of return from the fire for immediate use in the event of another alarm.

Where the department has plenty of apparatus, and is likely to have more hose available on the apparatus than needed at any fire, then this plan would not be of any material benefit.

In regard to marking new hydrants, this is done in many cities. New York City marks all hydrants with figures indicating the size of mains to which they are attached. Other cities use a color scheme, using different colors for the hood to indicate the quantity of water available from the hydrant. This latter plan has been approved by the New England Water Works Association, American Water Works Association and the New England Association of Fire Chiefs.

Lifting Water by Suction

To the Editor:

In "Simplified Fire Department Hydraulics" a statement appears which says that "the maximum height to which water can be raised by suction is 33.9 feet."

Does the 33.9 feet represent a perfect vacuum regardless of size or power of the pump? For example, with a pipe one inch in diameter and fifty feet high, will water only rise 33.9 feet in this pipe regardless of the pump? O. F. G.

Answer: If the vacuum is a perfect one, then the maximum height to which water can be lifted is 33.9 feet. Neither the type of pump, size of pump, nor any other condition affects the problem, except the ability to create a vacuum.

After all, the height water can be lifted by suction is determined entirely by the ability of the pump to create a vacuum.

The atmospheric pressure is 14.7 pounds per square inch. And if the pressure within a vertical pipe is reduced to zero, then the pressure of the atmosphere is 14.7 pounds greater than the pressure in the pipe, and this atmospheric pressure will push water up into the pipe. At one pound the pressure will raise water 2.304 feet; 14.7 pounds will raise it 14.7×2.304, or 33.8688, or 33.9 feet approximately.

Of course, no pump built can exhaust all the air from an air-tight pipe line, or suction hose. This is due to the fact that air will expand indefinitely. As some of the air is removed, the air that remains will expand to completely fill the space, though at a lower pressure.

Fire engines are considered in good shape if they can lift water twenty-five feet; some pumps have lifted water as far as twenty-eight feet; but this is not common.

Charged Line

To the Editor:

What is the correct definition of a charged line? Is it possible for a line to be called charged when the nozzle is closed and the valve closed at the hydrant, or is a line charged only when there is water in the hose and the nozzle closed and the hydrant valve open? J. B.

Answer: The dictionary defines the word "charged" as follows:

"To place a charge, as of powder, electricity, or gas, within or upon; to load, to fill."

Thus a line that is filled with water would normally be said to be "charged" with water, irrespective of whether any pressure was applied to it or not. Common practice in the fire service, however, is to refer to a charged line as one which is filled with water under pressure.

Tear Gas

To the Editor:

Recently tear gas has been installed in a garage service station and show room (all in one building and one firm). Are gas masks necessary when entering such building, or will ventilation and a stream of water have any effect on tear gas? F. L.

Answer: Tear gases are created from heavy, oily, relatively high-boiling-point liquids. Most of these liquids are insoluble in water, but hydrolized to a greater or lesser extent by alkalis, and are corrosive to metals. Their vapors, which are colorless and strongly inflammatory, possess a characteristic pungent, but not unpleasant, odor.

Water sprays are not effective in absorbing the gas, due to the fact that the liquid is insoluble in water.

Ventilation is highly desirable, and highly effective, unless quantities of the liquid are present.

Unfortunately, tear gases, as a rule, are very persistent, and it requires very little in the air to make a locality untenable.

A well-designed gas mask should be able to filter out most of the tear gas in the atmosphere, although self-contained breathing apparatus are far more satisfactory for this work.

In developing the tear gases, they were designed to penetrate the war gas masks, so that they are not as easily removed from the air as other types of gases which are readily absorbed by the materials in the gas masks.

Placement of Ladder; Nozzle Reaction

To the Editor:

In a recent examination held in our department the following question was asked:

"Q: An 85-foot aerial ladder was in position to be placed into a fourth-floor window. How much would the truck have to be moved to place the ladder into the sixth-floor window? (1) Out twelve feet? (2) Out seventeen feet? (3) In twelve feet? (4) In seventeen feet?

The correct answer was given as No. 4, i.e., the ladder should be moved in toward the building seventeen feet.

I would like to know if you are in agreement with this answer and if so, why? In my opinion the truck would not have to be moved at all. If it were moved, it should be moved about five feet away from the building. Is there any method of figuring the distance that is supposed to be between the ladder and the building? If so, what is the method?

The formula for determining back

pressure is: The square of the diameter times the nozzle pressure times one and a half. One of the laws of physics states that for every action there is an equal reaction. According to this law, the reaction should be equal to the area of the nozzle which is approximately the diameter squared, times the nozzle pressure. Can you explain why there is this difference in the two methods?

Answer: The question asked relative to placement of ladders seems impracticable. Evidently the examiner had in mind a ladder extended its full length and just reaching the fourth-floor window. Thus the truck would have to be over seventy feet away from the building.

Now, if the ladder is to reach the sixth floor, the truck would have to be moved nearer to the building to bring the tip up to the sixth floor.

If you want to solve this problem, it is necessary to use the old triangle rule that the square of the hypotenuse is equal to the sum of the squares of the two sides.

The hypotenuse will be the length of the ladder which is 85 feet, and the sides will vary depending upon the distance at which the truck is placed from the building and the point at which the ladder touches the building.

In the problem you give, assume that the fourth-floor window is approximately forty feet above the street (allowing 12½ feet per story and 2½ feet for the window sill).

Then the distance the truck is placed from the building will be the square root of [(85 × 85) — (40 × 40)] or the square root of 5,625, or approximately 75 feet. This is the distance the truck is placed away from the building when the tip of the ladder reaches the fourth floor.

Now the ladder is moved in so that the tip reaches the sixth floor, which will be approximately 65 feet above the street.

Then we have the square root of [(85 × 85) — (65 × 65)], or the square root of 3,000, which gives us approximately 55 feet.

Fifty-five feet is the distance the truck is placed away from the building when the tip of the ladder reaches the sixth-floor window. The amount the truck has been moved in is then 75 — 55, or 20 feet.

While the problem states 17 feet, apparently different height per story was taken than 12½ feet.

In regard to determining the action of nozzles, the old rule of physics apparently does not apply. You are dealing with velocity head rather than pressure head, which apparently makes a difference.

The rule for determining reaction from a nozzle was based on actual test figures conducted at Boston some years ago. They are generally recognized as being substantially correct.

Standpipe Problem

To the Editor:

You order an engine company to perform the following operation: Lay 3-inch line 100 feet long to siamese of standpipe, to supply a line connected to sixth floor outlet which is to be operated in the seventh floor. 100 feet of 2½-inch hose with a 1⅛-inch nozzle is used. There is 120 pounds pressure at the pump. What is the approximate pressure at the nozzle?

Later you order another 2½-inch line connected to fifth floor outlet valve using the same size nozzle and to operate in the seventh floor also. This required 200 feet of 2½-inch hose. What is the engine pressure with both lines operating?

C. J. N.

Answer: In solving this problem, first find the back pressure due to the elevation of the nozzle above the engine.

The nozzle is on the seventh floor, which would be 6 × 12, or 72 feet above the street.

The back pressure is then 72 × .434 = 31.248 pounds.

Allow for friction loss in the standpipe, 25 pounds.

Then the corrected engine pressure is equal to 120 — 31.248 — 25 = 63.752 pounds.

Change the 3-inch hose to 2½-inch.

100 feet of 3-inch hose 100 ÷ 2.6 = 38.46 feet of 2½-inch hose.

Then the hose in the layout is equivalent to a single line of 2½-inch hose 100 + 38.46 = 138.46 feet in length.

Nozzle pressure = engine pressure ÷ (1.1 + KL)

K, for 1⅛-inch nozzle and 2½-inch hose, = .167

L, the number of 50-foot lengths of hose in the line, is 2.769.

Then N. P. = E. P. ÷ (1.1 + .167 × 2.769)
= 63.752 ÷ 1.56
= 40.8 pounds.

The second problem cannot be solved as no nozzle pressure is given.

Friction Loss and Engine Pressure Calculations

To the Editor:

An engine is attached to a hydrant at which the pressure is 30 pounds. It is pumping through 1,000 feet of 3-inch hose to a second engine which pumps through 800 feet of 2½-inch hose to a nozzle 1⅛ inches in diameter. The nozzle pressure is 36 pounds.

(a) What is the friction loss on 100 feet of 2½-inch hose?

(b) What is the friction loss in 100 feet of 3-inch hose?

(c) What is the engine pressure of the first engine?

(d) What is the engine pressure at the second engine?

(e) What is the discharge from the first engine?

(f) What is the discharge from the second engine?

(g) At what approximate pressure should water be delivered to the second engine? N. Y. C.

Answer: First, we find the discharge from the nozzle.

Discharge = $29.7 \times d \times d\sqrt{P}$
= $29.7 \times 1\frac{1}{8} \times 1\frac{1}{8} \times \sqrt{36}$
= 224 gallons per minute.

The friction loss in 100 feet of 2½-inch hose carrying 224 gallons per minute is found as follows:

Friction Loss (100 feet) = 2 × Q × Q + Q, where Q is the flow measured in hundreds of gallons per minute.

Then the friction loss per 100 feet = 2 × 2.24 × 2.24 + 2.24, or 12.275 pounds.

The friction loss in 100 feet of 3-inch hose is equal to the friction loss in 100 feet of 2½-inch hose divided by 2.6, or 4.72 pounds.

The pressure at engine No. 2
= 36 (1.1 + .167 × 16)
= 36 × 3.772
= 135.792 pounds.

The friction loss from engine No. 1 to engine No. 2 is equal to 10 × 4.72, or 47.2 pounds.

The inlet pressure at engine No. 2 (which includes friction loss through the connections of pumper) is usually allowed as 10 pounds.

Then the pressure at engine No. 1 will be 47.2 + 10, or 57.2 pounds.

The type of pump is not indicated, so that the value of the pressure supplied by the hydrant is indeterminate. However, it is sufficient to supply engine No. 1, and the pressure at the discharge gate of engine No. 1 is desired. It is given in the calculation above.

Engine No. 1 is discharging the same quantity of water as is being delivered from the nozzle, which is 224 gallons per minute.

Chiefs' Club Offers Resolution on Brockton Tragedy

At a meeting of the Fire Chiefs' Club of Massachusetts, held in Boston, Mass., on March 19, a review was made of the circumstances leading up to the tragedy which resulted in the loss of thirteen firemen's lives and injury to twenty-two other firemen at Brockton, Mass., on March 10. Based on the best information available, it was generally believed that the loss of life could have been prevented if, at the time the building was constructed, or later, suitable provisions had been made for furnishing automatic means to check or detect the fire, and at the same time, summon the aid of the fire fighting forces before the fire made such headway.

At the meeting of the Chiefs' Club, the following resolution was passed:

Resolved, that this organization extend to Fire Chief Frank F. Dickenson, Mayor Fred D. Rowe, the members of the bereaved families and the citizens as a whole of the city of Brockton, Mass., our heartfelt sympathy and deep sense of sorrow in their great loss.

Civilian Training Starts in Erie

A so-called home defense program has been started in Erie, Pa., to train civilians in fire fighting. This program, headed by Assistant Chief Lawrence P. Scully is open to men twenty-one years or over. Its two-fold purpose is to teach the people the fundamentals of fire fighting and to provide elementary instruction in first aid.

Instruction is being offered by Erie firemen who are capable of instructing because of the course given them by the State Department of Public Instruction.

A Letter to Priorities Board

The following letter has been forwarded by the Headquarters Office of the International Association of Fire Chiefs to Mr. E. R. Stettinus, Jr., chairman of the Priorities Board, Office of Production Management, Washington, D. C.

March 24, 1941

Mr. E. R. Stettinus, Jr., Chairman
Priorities Board
Office of Production Management
Washington, D. C.

Dear Mr. Stettinus:

Here's a matter we feel deserves your serious consideration!

Today, no large city in the United States, with the possible exception of New York City, has a fire department of mechanical strength even equal to that it enjoyed in 1930.

A survey conducted by FIRE ENGINEERING, the mouthpiece of the American Fire Service, covering 572 of the larger American cities showed that over one-half of the fire apparatus at present in service in municipal fire departments is obsolete. Of 5,580 fire engines in service, 2721 are over ten years old.

Relief burden of cities has resulted in deferment for the past ten years of purchase of apparatus sorely needed to replace aged and weakened machines. The situation today is precarious.

And to make matters even worse, builders of motor fire apparatus today are unable to secure sorely needed metals and machinery because of the operation of Priorities rulings.

These builders are in some cases six months behind in deliveries to municipal fire departments. And the condition is steadily growing worse.

Were these normal times, this condition would cause no apprehension; but with defense industries springing up throughout the country, with plants undergoing rapid enlargement and with production in defense factories being pushed twenty-four hours a day, the situation is serious.

Industrial expansion of cities has not been matched by fire department expansion.

Fire departments of the many cities today harboring huge airplane, munition, shipping and other defense product plants are, with few exceptions, of the one-fire class. A single large fire at a time is all the department can handle. Should a fire start simultaneously in one of the large defense industries, serious damage, if not total destruction, might result.

Yes, municipal fire departments are badly in need of fire apparatus, and Priority restrictions are beginning to seriously interfere with the free flow of apparatus through the plants.

We urge you to place motor fire apparatus in the same priority classification as war munitions!

Briefly, here are our reasons:

First: One fire in a war industries plant, getting beyond control of the fire department, would delay the national defense program far more than would the diversion of a small amount of metals and machinery to the fire apparatus industry. The production of motor fire engines during the past ten years has averaged less than 1,000 units annually.

Second: Fire departments are under-equipped today, due to the strained condition of municipal finances during the past ten years. Unless fire apparatus plants are permitted to operate without restriction, this deficit in apparatus cannot be made up for years.

Third: The fire apparatus industry is such a small industry, capable of producing at best not more than 2,000 fire trucks per year (as compared to 4,575,000 passenger cars and commercial trucks per year) that the amount of metals and machinery it consumes is truly but a "drop in the bucket."

Fourth: Fire defense in this country is recognized, as abroad, as the first line of civil defense.

Fifth: Though there is little likelihood of sustained incendiary aerial attack by the enemy (if we become fully involved in the war) the problem of sabotage by arson is real. Good fire defense is good war industry defense.

Sixth: Great Britain grants her fire apparatus industry the same priority as her war airplane industry.

Finally: No matter how huge the airplane plant, the steel mill, the shipyard, the war industries plant; no matter how great its production in vital war materials, it is just as vulnerable to fire as the smallest machine shop. Uninterrupted defense work requires protection against fire. Defense against fire means fire apparatus—and plenty of it.

May we urge you, Mr. Stettinus, to have motor fire apparatus placed in the same Priorities classification as other national defense materials?

Cordially yours,

INTERNATIONAL ASSOCIATION
OF FIRE CHIEFS
By: Fred Shepperd
Headquarters Manager

FS:DP

Among the Fire Fans

By Otis Smith

THE second annual dinner of the Fire Bell Club of New York was held at the Hotel Martinique, February 11. One hundred thirty guests, friends and members gathered for the occasion. The arrangements of the Dinner Committee left nothing to be desired and even included an especially entertaining floor show.

It had been hoped that Commissioner McElligott would be present, but he was obliged to send his regrets at the last moment, due to a defense conference in Washington, D. C. Fortunately, Deputy Commissioners McKenna and Archer were able to be present. They were seated on the dais with Assistant Chief of Department John J. McCarthy, and other guests of honor, including Father Merritt Yeager, one of the department chaplains. Commissioner McKenna's short and interesting talk left the boys with the feeling that, at long last, they might be able to serve the department in a useful and active capacity, should a state of emergency require the mobilization of the volunteer auxiliary. Other speakers were Dr. Harry M. Archer, Second Deputy Commissioner, and "Head Buff" of all the buffs, and John J. McCarthy, Assistant Chief of Department.

The Telegraph Bureau was well represented, and there was quite a sprinkling of Deputy and Battalion Chiefs, all of whom seemed to express their pleasure that the Club was going into its third year and still progressing. The new clubroom, which was decorated for the dinner, was later visited by some of the guests. The Guest Register at the club seems to have developed into a "Who's Who in the Firemanic World in the United States."

Although the dinner was superb, another highlight for the buffs was a 3rd alarm on Third Avenue in the Bronx shortly after midnight. All hands responded from the club and were there until about 4 a.m. Also, a little uneasiness was experienced by some members at the dinner when word got around that the department was trying to hold a snorting first alarm in a downtown loft, but everyone suffered in silence until he saw the ruins of the building next day after the fire was out.

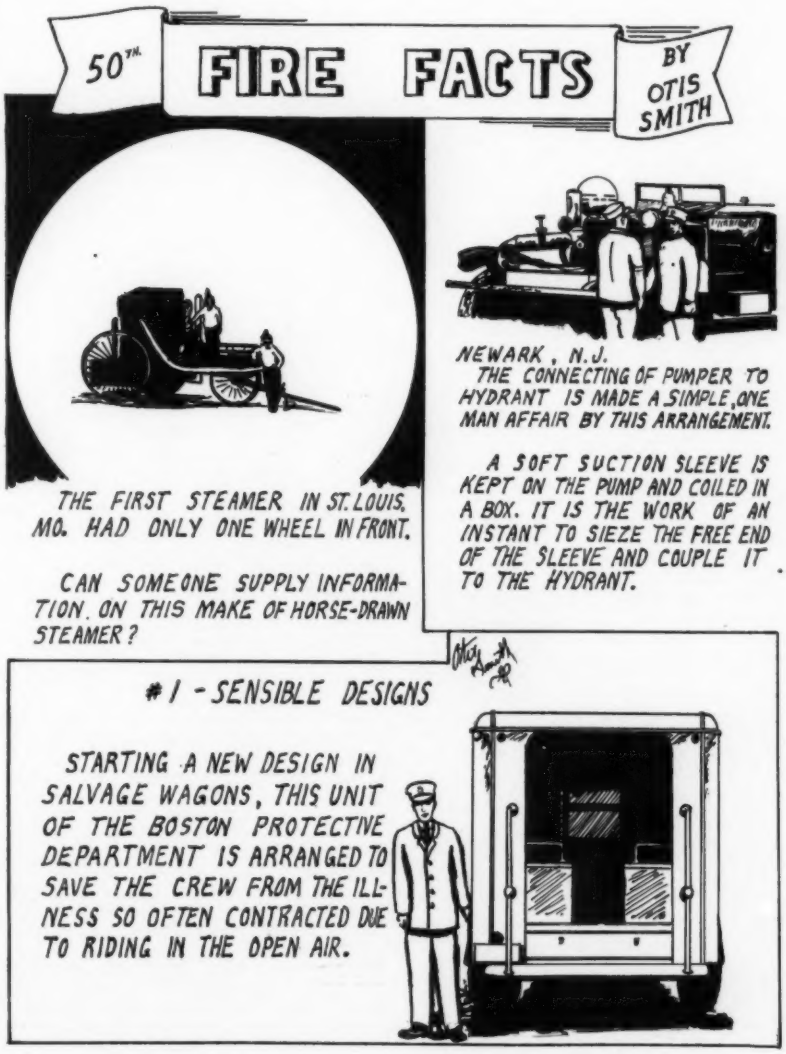
The March meeting of the Bell Club was augmented by Deputy Commissioner Harry Archer, and a couple of reels of motion pictures by Honorary Deputy Chief Al. Dreyfous. Booking agent for this meeting was Gordon Mullins, bashful buff and chairman of the speakers bureau. Dr. Archer brought Fire Department Ambulance No. 1 along, and had various instruments of the ambulance on display at the meeting. Others present at the meeting included the Rev. Froenhoefer, S.J., of St. Francis Xavier College; Elmer C. Pierce, former Secretary of Box 13, Cincinnati, and now working out of New York, and a full run of Bell Club members.

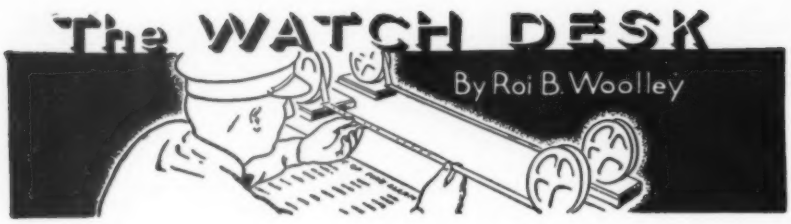
Frank L. Wilgus, city editor of the Ocean Grove, N. J. Times, is interested in the collecting of fire photos. Mr. Wilgus also gives the buff hobby some publicity through the columns of his weekly . . . thanks for sending that self addressed stamped enveloped, Chester L. Speed. Your thoughtfulness made it a pleasure to send the information you desired . . . an ever increasing stream of fire photos arrived during the month, presenting this writer with somewhat of a problem in suitably arranging the photos. . . . Asst. Supt. of Machinery Stagge, Baltimore Fire Department, and his crew, gathered at Hillen Yards on April 1 to unload four new Seagrave aerial tractors. The new units are numbered for Trucks 8, 10, 13, and 18. The tractor for No. 8 Truck will draw an aerial, thus doing away with the city service truck now being used by No. 8. Other tractors are also due for replacements. We understand that the Mack people are building a Rescue Squad for the Baltimore Fire Department. . . . Francis J. Bertrand, 16 Custer St., Jamaica Plain, Mass., is in the fire photo trading hobby. . . . Elmer Pierce, former Secretary of Box 13, Cincinnati, is now working out of New York City. We understand his address there is 216 Longacre Bldg., 1272 Broadway. . . . Robert R. Ballantyne is the present Secretary of Box 13. Mr. Ballantyne's address is 3375 Ault View Ave., Cincinnati, Ohio.

George B. Hill has been appointed Secretary to the Signal Club, Detroit, Mich. Mr. Hill lives at 6621 Steadman Ave., Dearborn, Mich. Another Signal Club member, Joseph W. Orendorf, Jr., has a hobby of taking photos of fire apparatus. The writer has received several photos of fire apparatus, relics from Mr. Orendorf, and they are very interesting. Mr. Orendorf lives at 3524 Lawton Ave., Detroit, Mich.

Bill Herries, the Fire Buff camera man has hung enough fire news pictures on the walls of Eng. 54, New York City, to give the firemen an exhibit of their own. The top floor has taken on the appearance of a professional studio and Bill is still adding to the collection.

A card from Jimmie Jackson announced the arrival of Dorothy Pearl Jackson, on March 22, weight 6 lbs., a "real model." This explains why Jimmie has been out of the running for the past several weeks. According to Jimmie, he plans to catch up on his construction of model fire apparatus as soon as possible. His address is 147 E. Cayuga St., Oswego, N. Y.


50TH.
FIRE FACTS
BY OTIS SMITH
THE FIRST STEAMER IN ST. LOUIS, MO. HAD ONLY ONE WHEEL IN FRONT.
CAN SOMEONE SUPPLY INFORMATION ON THIS MAKE OF HORSE-DRAWN STEAMER?
NEWARK, N.J. THE CONNECTING OF PUMPER TO HYDRANT IS MADE A SIMPLE, ONE MAN AFFAIR BY THIS ARRANGEMENT.
A SOFT SUCTION SLEEVE IS KEPT ON THE PUMP AND COILED IN A BOX. IT IS THE WORK OF AN INSTANT TO SIEZE THE FREE END OF THE SLEEVE AND COUPLE IT TO THE HYDRANT.
#1 - SENSIBLE DESIGNS
STARTING A NEW DESIGN IN SALVAGE WAGONS, THIS UNIT OF THE BOSTON PROTECTIVE DEPARTMENT IS ARRANGED TO SAVE THE CREW FROM THE ILLNESS SO OFTEN CONTRACTED DUE TO RIDING IN THE OPEN AIR.



Our inquiring reporter overhauls the firemanic news of the day

Rescuers Hadda Be Rescued

In Cleveland, Ohio, a six-man fire rescue squad needed some of its own medicine. The brothers answered a call to an East Side home and worked four hours on five persons overcome by carbon monoxide fumes. Then the whole squad became ill. A second squad and doctors were summoned. Two hours later all hands had been revived.

* * *

Rescuers Lose Five-Hour Fight

Unusual tragedy was that of death of James Seery, 32, New York City, who was crushed and suffocated when, after falling into master coal feed bin in subbasement of N. Y. Life Insurance building, he was buried under avalanche of 200 to 1,000 tons of buckwheat coal.

Fire and police emergency squads worked frantically for five hours to extricate victim before he succumbed to tremendous weight of powdery coal, but to no avail. Doctors administered hypodermics to relieve his suffering. His coworkers managed to free his head but his struggles, and efforts of rescuers, during which ropes, barrels and every possible instrument were used, proved fruitless, and he slipped beneath the coal, and was dead when finally dug out.

* * *

Successful Rescue

A more successful rescue was that of Conrad Schmitt, 60, assistant foreman of Dept. of Sanitation, New York City, who fell 60 feet to bottom of pit in old city incinerator at Woodside, Queens. Critically injured, he was rescued by two firemen, Lieut. Fred Garrison and Lester LaPorte of H & L 140 who were lowered into pit with ropes and directed the victim's removal.

* * *

Tit for Tat

Earle Robinson, Des Moines champ' clipper, sends us one about the gent who would stand for no nonsense and who was walking along before the N. Y. Yacht Club Building during one of the recent balmy spells, when suddenly, out of a window and past his nose, shot a half lighted cigar. The walking gent,' with no hesitation whatever, hastily lighted a cigarette, tossed it into the open window, and went happily on his way.

* * *

Unsung Heroes

The clipping comes to us without comment. We don't know the city or the paper; nor do we know the names of these brothers, but if they are reading this, take a bow and a citation. The streets, we learn were "Ninth & Walnut"—both busy and crowded. A Curbliner (Bus to us) was just "cutting the corner" when an "unidentified woman" slid off her feet directly in the path of the wheels. The two braves, standing on the corner "acted in a split second." Minds working as one, they "darted forward and pulled her back on the walk, just as the big wheels passed over the spot where she would have been." We hope she had the grace to thank 'em—and report the deed!

* * *

Oh, Te-e-echer!

Sirens screeching, apparatus raced past the Albany, N. Y., school where Anna Vavasour taught. When students felt the urge to peer out to see what was happening, the dutiful teacher warned 'em to study their lessons. Some minutes later a messenger informed Miss Vavasour that her house was burning! She excused the class—in a hurry.

Hot Off the Tape

Fire at a fruit farm near Palmyra, N. Y., was caused, say firemen, by some one's haste in getting out of bed. The bed clothing, thrown against a stove pipe, became ignited. . . . Otto W. Merk, 49, who won seven commendations and two medals for rescue work while a member of N.Y. F. D., died as a result of head injury received two years previously. We knew him as a member of Truck 6 in the busy 4th Battalion. . . . Two men in Reading, Pa., died as result of $100 fire. Joseph Posey, 48, suffocated when his cigarette ignited mattress after he'd fallen asleep; Joel H. Englehart, 32, a fireman, died from a fall received in answering the alarm. . . . After falling asleep with lighted cigarette in her hand, Mrs. Louise Ridge, 35, East Orange, N. J., was fatally burned from resulting fire. . . . Ben Kissinger, 59, died in vain attempt to save his son Earl, 25, trapped in his flaming house at Paynesville, Minn. . . . Fire Lieut. Alfred Schaitzle, Eng. Co. 230 and fireman Denis Healy, H & L 120, N.Y.F.D., were seriously burned when accumulated gas in a manhole exploded. . . . Fireman Harold Barker, N.Y.F.D., 33, several times cited for bravery, died from injuries received when he fell 15 feet descending a ladder at La Guardia Airport. . . . A New York bound N. Y. Central passenger train traveled 21 miles with fire going in the club car, to Poughkeepsie, N. Y., where firemen, summoned in advance went to work. . . . The historic Tombs prison, N. Y. City, is called a fire hazard, according to Commissioners of Correction. . . . Fireman Robert Hamilton, 19 years a member of Kearny, N. J., Fire Department, suffered fatal heart attack and died, while fighting a brush fire. . . . In Kansas City, Mo., Herman Snitz started to sweep snow off his sidewalk, but changed his mind when he found his house was afire. Brothers put out roof blaze, loss $550. . . . Orchids to Rev. Thomas J. Tierney, Fire Department Chaplain, Cambridge, Mass., who donned a fireman's helmet, climbed ladder and rescued two children from top-floor of burning 3-story apartment. . . . Chinese residents of three buildings in hazardous section of Chinatown, New York City have been ordered to vacate buildings declared unsafe after another fatal tenement fire. . . . The N.Y.F.D. now broadcasts fire alarms over its 1620-kilocycle radio system. . . . Fifty New York City firemen were more or less incapacitated in 2-alarm fire on Canal Street, that city. . . . When a N.Y.A. field house at Tulsa, Okla., burned, 101 excited young women fled just before an explosion demolished structure.

* * *

Thriller

Dangling helplessly and frightened at the end of his safety belt from a 12th story window of a Manhattan, N. Y. City, building, at the noon hour, while thousands of onlookers held breaths in suspense, Abraham Drimmer, 57, lived a lifetime while he waited for his strap to break. Meantime, fire and police rescue squads came flying at frenzied calls of those who saw his predicament, while an elevator operator and tenants of the building worked desperately to save him. Pale and shaken, but uninjured the window washer was finally hauled to safety. Just another day's work for the rescue squads!

* * *

Curb Service

Fireman Roy Barkley, Seattle, Wash., F. D. gazed listlessly out of his fire station window. Suddenly he snapped to attention, turned and flashed down the pole. He had seen an elderly man strolling by, unconcerned, while smoke was pouring from his pocket. Barkley's shouts at first brought no response—then the passerby awoke with a start as Barkley rushed up, began beating out the fire. Followed by thanks of victim, Barkley returned to station. "Matches," muttered he. We mutter, too—"good work, Brother Barkley!"

* * *

A Real Ripley!

We were in on this, so can vouch for its truth. So can plenty of others.

The Larchmont Vamps hold their "Departmental Drill" on the last Monday in the month. To make the February affair "extra special" the Department was to listen to Captain "Teddy" Beliakoff, Rescue 3, New York Fire Department, and Honorary Battalion Chief, Alfred Dreyfous of the same Department, who was to show his famous fire pictures.

In order to insure adequate meeting room, permission was given to hold the lecture and entertainment in the Parish House of St. John's Episcopal Church, Fountain Square, Larchmont. And to make sure that the Brothers were on hand promptly, Chief Frank Tierney planned to sound "23" on the "hooter"—this being the signal number for the "imaginary box" nearest the church.

At just about the right time—8:15 p. m., the signal was sounded—four rounds of it. BUT—it wasn't for the social gathering. It was for an honest t' Gawd roof fire in a large frame dwelling only a short distance from the church. To say that "all hands" came—including Beliakoff and Dreyfous, and the latter's "agent" and chauffeur, Fire Bell Club buff extraordinary Gordon Mullins—is putting it mildly. The guests said that they had never been better entertained. As for the Vamps—say, it was a swell night!!!

U. S. FIREMEN GIVE CANTEEN TO FIREMEN OF LONDON, ENG.

Presentation Made by Fire Chiefs' Emergency Plan of Westchester County —$400 on Hand to Start New Fund

IN a simple but effective ceremony, held at Fire Headquarters, White Plains, New York, Sunday, March 30, a Mobile Canteen was presented to the British American Ambulance Corps for the use of firemen of London, England, by the Fire Chiefs' Emergency Plan of Westchester County, New York, in the name of brother firemen of America.

A check for $1,500 was presented to Wm. V. C. Ruxton, President of the British American Ambulance Corps, (through which organization and the British War Relief Society, the Canteen will be bought) by Commissioner William Livingston, President of the Fire Chiefs' Emergency Plan, a beautifully bound book, inscribed "To the Firemen of London From the Firemen of America," containing "Honor Rolls" bearing nearly 4,000 names of donors to the Canteen Fund, was also presented to the Corps by Chief Roi Woolley, Chairman, British American Firemen's Canteen Fund, under which name the money was raised.

Large Audience Sees Presentation

Some 500 officers, firemen and friends were present when the White Plains Fire Department Band played the national anthem. This was followed by the introduction of Rev. Carl F. W. Strobel, Chaplain, White Plains Fire Department, by Chief Abbott Griffin, White Plains, who, with his capable organization, served as hosts of the day. After prayer by the Chaplain, Chief Griffin introduced Commissioner of Public Safety, Thomas A. Foley, White Plains, who graciously yielded the 'mike' to Westchester's representative in the House of Representatives, Washington, the Hon. Ralph Gamble, who made a spirited address, complimenting the firemen of America upon their sympathy and understanding for their London Brothers. "This," said he, "is the best kind of lend-lease cooperation."

Others who were introduced were Gifford T. Cook, Assistant Headquarters Manager, International Association of Fire Chiefs, Leon Meaney, Chairman of the British American Firemen's Canteen Fund for the State of Connecticut, Adam Straub, President. Westchester County Volunteer Firemen's Assn., Capt. Eugene Riviere, Treasurer, British American Firemen's Canteen Fund and Col. Richard Slee, Chairman, White Plains Committee for British War Relief.

Honor Roll Goes to Washington

James Imbrie, Exec. Sec. British American Ambulance Corps and Mrs. Imbrie, accepted the book of Honor Rolls for the Corps. This was sent to Washington to be included in the diplomatic mail to be sent overseas. Inasmuch as the Canteen will be built in England, this left the British American Firemen's Canteen Fund with a "spendable surplus" of nearly $400 owing to the difference between the $1900 actually collected and the amount of the contribution, $1500, after small expenses had been deducted. This is now the nucleus for the Fund to purchase another canteen. The following message appeared on the roster of donors:

"To the Firemen of London"

"There is a tie of brotherhood between firemen the world over which is like unto no other bond of human understanding. It is that rare relationship which has brought to the Firemen of the United States the full appreciation of the unsung heroism of their British Brothers in all branches of the Fire Service, in the face of the most frightful warfare the world has ever known. In recognition of this courage, and of our sympathy, we of the American Fire Service and friends whose names are inscribed here—together with countless unnamed others—present to the firemen of London a Mobile Canteen. May this evidence of Brotherhood serve to sustain and strengthen you in your hours of trial and help to bring you safely through until the final "all out" is sounded, and an honorable peace is won."

Although other kitchens have been sent abroad, and some earmarked for firemen, this is the first that is the gift of firemen, and their friends, to the London Fire Service including regular and auxiliary firemen. It is expected that the Fire Chiefs' Club of Connecticut, including that state's several Fire Chiefs' Emergency Plans, Leon Meaney, Chairman, will make its presentation shortly. Still another concerted effort to contribute toward the British American Firemen's Canteen Fund is being made in the territory of the Del-Mar-Va Volunteer Firemen's Association, J. E. Parks, Chairman, Cambridge, Md. First checks from this organization have already been received by Chairman Woolley.

In presenting the book of signatures to accompany the check for the Canteen, Chief Woolley emphasized the fact that included in the distribution were contributions from every section of the Country and from manufacturers and private citizens, as well as firemen.

At the finale, "America" was sung by fireman Fred Wolf, White Plains, accompanied by the Band, after which the Rev. Eugene Callahan, also Chaplain of the White Plains Fire Department gave the Benediction.

Presentation of Mobile Canteen to Firemen of London, England, by Fire Chiefs' Emergency Plan, Westchester County, White Plains, N. Y.

Front row, left to right, Chief Paul Holke, Pleasantville, N. Y.; Chief Edward Carney, Pleasantville, N. Y.; Unknown Chief, Port Chester, N. Y.; Chief Roi Woolley, Larchmont, N. Y., Chairman, British American Firemen's Canteen Fund (with book of Honor Rolls); Chief Joseph Lagana, Tarrytown, N. Y.; Wm. Livingston, President of the Fire Chiefs' Emergency Plan, Westchester County (presenting the check); Mrs. James Imbrie, Jr.; Mr. Wm. V. C. Ruxton, President of British American Ambulance Corps; (rear) Chief John Van de Water, Hastings-on-Hudson, N. Y.; James Imbrie, Jr., Executive Secretary of British American Ambulance Corps; (rear) Chief Abbott Griffin, White Plains, N. Y.; The Hon. Ralph Gamble, House of Representatives, Larchmont, N. Y.; (rear) Chief John Petterson, Larchmont, N. Y.; Captain Eugene Riviere, Treasurer of British American Firemen's Canteen Fund; Captain Cornelius Falch, Sergeant at Arms; (rear) Assistant Chief Paul Schuman, Briarcliff Manor, N. Y., and Chief Rowland Doughty, Briarcliff Manor, N. Y.

British American Firemen's Canteen Fund

Akron Brass Mfg. Co.	$100.00
Fire Chief's Emergency Plan, Fairfield Co., Conn.	25.00
Westchester Co. Volunteer Firemen's Ass'n	50.00
Larchmont Fire Dept.	25.00
John Petterson, Larchmont, N. Y.	1.00
James Deasy, Greenville, N. Y.	5.00
Cortlandt Eng. Co., Inc., Montrose, N. Y.	10.00
Mr. & Mrs. Bennington, Larchmont, N. Y.	2.00

(*Continued on page* 198)

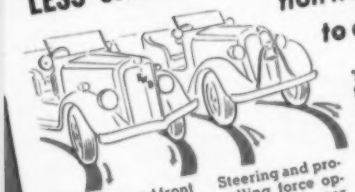
FWD APPARATUS ANSWERS EVERY DEMAND FOR GREATER SPEED · POWER · TRACTION · SAFETY · IN MODERN FIRE-FIGHTING EQUIPMENT

Whatever the emergency calls for, you can depend on FWD apparatus to perform in full measure with all the factors that count in fire fighting — speed that gains precious minutes getting to the fire — power to climb the steepest grade without slackening pace — full four-wheel traction to get through snow or mud-blocked streets — sure-footed safety for fast travel on wet, slippery pavements.

The two driving axles of an FWD, delivering powered traction to front as well as rear wheels, are double assurance that it will bring men and equipment to the fire in less time and with safety —under all conditions of road and weather.

FWD Model KSU 750-gallon triple combination pumper recently purchased by Salt Lake City, Utah. The new unit, equipped with five-man cab, is built on a 180-inch wheelbase and is powered by a 204-horsepower engine. Other equipment includes a 100-gallon booster tank and two aluminum ladders, 14 and 24 feet in length. The hose body has a capacity of 1200 feet of 2½ inch hose.

LESS SKIDDING — powered steering traction holds front wheels to direction of turns.

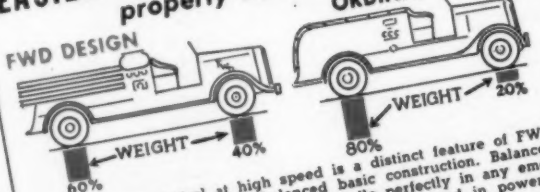


FWD powered front wheel traction always in direction steered — minimizes skidding.

Steering and propelling force opposed with rear drive — encourages skids.

The propelling force to the front axle of the FWD is always in the same direction in which the truck is steered minimizing skidding and giving more positive steering control. Skidding tests conducted on ice show 50% less skidding due to powered front axle alone.

EASIER TO HANDLE AT HIGH SPEED properly balanced



Positive driver control at high speed is a distinct feature of FWD design due to its properly balanced basic construction. Balanced weight distribution makes the truck handle perfectly in any emergency. The added weight on the front axle is used in powered traction for greater safety and increased performance.

FASTER GET-A-WA

ONLY THE FWD FOUR WHEEL DRIVE PRINCIPLE PROVIDES

The Shell Oil Company recently placed this new FWD Model KHS 500-gallon pumper in service at their Martinez, California refinery. Powered with a 107-horsepower engine. Built on a 180-inch wheelbase. Hose body has capacity of 750 feet of 2½ inch hose and 1200 feet of 1½ inch hose. Foamite equipment has been installed instead of usual booster tank.

FWD Model KSU 750-gallon triple combination pumper in service in the hilly copper mining city of Houghton, Michigan. The unit is powered with a 200-horsepower engine and built on a 180-inch wheelbase. Carries 119 feet of various length aluminum ladders, 1200 feet of 2½ inch hose, and 200 feet of ¾-inch hose.

FWD

THE FULL POWER OF FOUR DRIVING WHEELS GETS THE FWD TO THE FIRE *FASTER* WITH *GREATER SAFETY*...

Designed by experienced fire truck engineers—built by skilled mechanics—an FWD is every inch a fire fighter. Compared to a standard truck chassis with fire equipment merely adapted or "patched-on"—an FWD is a unit scientifically built and balanced for emergency service.

FWD has been building fire apparatus since 1914 and several of these pioneer trucks are still in active service. Now many leading cities in this country and abroad depend on FWD fire apparatus for the protection of life and property. New York City alone uses more than a million dollars worth of FWD equipment. Milwaukee, Minneapolis, and hundreds of other municipalities value FWD's extra safety and superior performance.

FWD builds a complete line of fire trucks in all types and sizes; write for literature.

THE FOUR WHEEL DRIVE AUTO COMPANY

Canadian Factory, Kitchener, Ontario

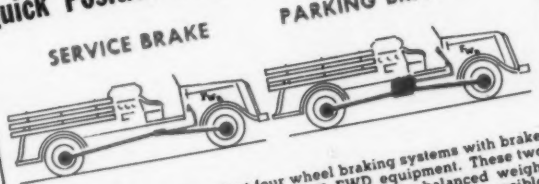
CLINTONVILLE · WISCONSIN

...our wheels grip ...road for the run.

...t on all four wheels makes ...use of all the engine power ...celeration—Slippery streets ...ordinarily would cause wheel ...s and delay do not present ...ards. All the weight of the ...ck and its load are converted ...o powered traction for maxi...um performance. Often only a ...action of the engine's full per...rmance is utilized when trac...ion is dependent on only one ...xle of a truck.

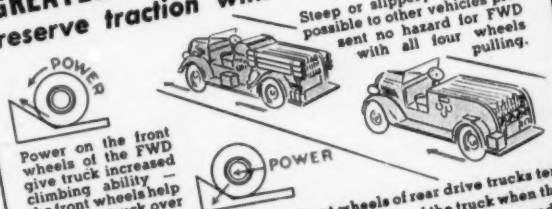
Quick Positive Stops for Any Emergency

SERVICE BRAKE PARKING BRAKE



Two separate and independent four wheel braking systems with brake drums on each wheel are a feature of all FWD equipment. These two super braking systems, combined with a properly balanced weight distribution, provide the most effective braking ability possible.

GREATER HILL-CLIMBING ABILITY — reserve traction with four-wheel-drive



Steep or slippery grades impossible to other vehicles present no hazard for FWD with all four wheels pulling.

Power on the front wheels of the FWD give truck increased climbing ability — the front wheels help to lift the truck over obstructions and up steep grades.

Non-powered front wheels of rear drive trucks tend to block the forward progress of the truck when the meet an obstruction or in climbing steep grade

...E OUTSTANDING SAFETY AND PERFORMANCE FEATURES

AMERICAN DEPARTMENTS RAISING FUNDS FOR BRITISH FIREMEN

Reports of the Response That Has Been Received Indicate That the Fund Drive is Well Under Way

SINCE the announcement of a drive by the International Association of Fire Fighters for funds to aid British Fire Fighters and their families, returns have been coming in at a gratifying rate. To date it is reported that over $10,000 have already been received.

This drive was started by the International Association of Fire Fighters as a means of showing the appreciation and sympathy felt by the fire fighters of this country, whether paid or volunteer, toward the British Fire Fighters. It was on the realization of a common bond existing between fire fighters that the Fund Drive was created.

Many Firemen Killed in Action

Since the beginning of the war, many of Britain's fire fighters have fallen in the line of active duty, while many others have been maimed for life or are confined to hospitals. Meanwhile the wives and children of these men have to suffer. In order to relieve these firemen and their families, every dollar and dime of the fund will go directly to them.

The organization setup for the relief fund has F. W. Baer, President, and G. J. Richardson, Secretary-Treasurer of the International acting as national directors. The Vice-Presidents and trustees of the International act as regional directors. A committee from the British Fire Fighters' organization will distribute and allocate the funds to those needing aid in Britain.

Fire departments throughout the United States and Canada, which are already actively engaged in the drive, have been raising money by promoting boxing matches, basket ball games, hockey games. dances, radio contests, fire drills and many other events. The methods which every fire department uses in raising the funds is entirely up to the department. The chairman of each city is the fire chief of that city and in cities where there is a local of the International, the President of this local acts as a co-chairman. It is the duty of these men to act as coordinators in the methods used in raising the funds.

I.A.F.C. Officers Are Helping

The co-chairmen are being aided by the International President, Secretary-Treasurer and Vice-Presidents. They have been doing everything to help the co-chairmen locally. To this end pictures, circulars, pamphlets, and other supplementary material, which are considered fitting and constructive, are being printed and forwarded for distribution.

In promoting the local features for raising the money, it has been suggested that the press and the radio be used to the fullest extent. In order to obtain time on the radio, the co-chairmen are advised to contact the program directors of the radio station asking for time and requesting their cooperation in giving it. In order to be of greatest assistance, the International office has made available eight-minute transcription sketches for the radio.

All money forwarded should be sent by check, post office money order or express money order made out to the British Fire Fighters' Relief Fund. The funds should be addressed to the International Headquarters in the United States or in Canada. The report should have the signature of the Chief of the department and other committee members responsible for raising such funds.

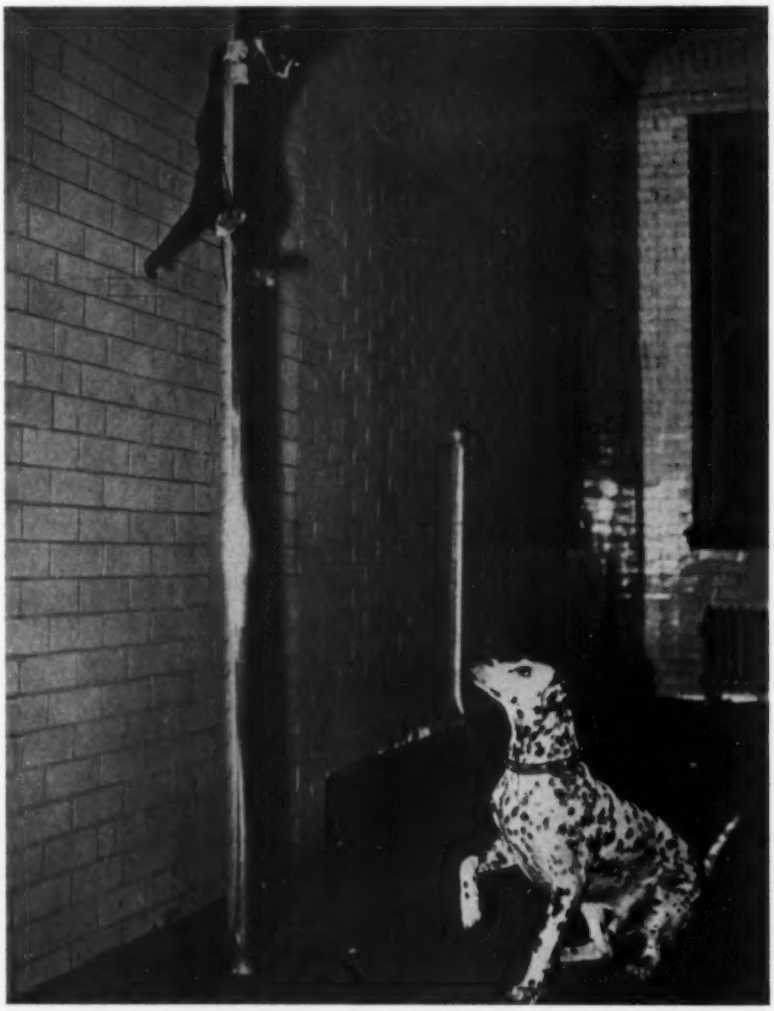
As a goal for the drive, it is expected that the equivalent of two dollars per fireman should be raised in every city, and that every volunteer fire company should have a goal of at least ten dollars per company.

Covington to Be Convention Host

The Northern Kentucky Firemen's Association, affiliated with the Kentucky Firemen's Association, will hold its 22nd annual convention in Covington, Ky., August 19-21. Activities pertinent to fire departments and the part they will take in national defense and in the safeguarding of vital industries will predominate the discussions.

New Chief for Muscatine, Ia.

Harold Bierman was recently named Fire Chief of the Muscatine, Ia., Fire Department to succeed Chief J. J. Brown who retired. Chief Bierman has been with the department since 1932.



Henry "Hits the Floor" in the Best Firemanic Manner

Henry is the feline mascot of Engine Company No. 65, New York Fire Department. He has mastered the art of sliding down the brass pole. Note how the hind legs are stretched out for the landing. Cappy is the Dalmatian mascot who rides on the engine to fires, while Henry remains behind and guards the station.

Ex-Chief Davis Navy Building Fire Marshal

Chief Ross B. Davis, retired Chief Engineer of the Philadelphia Fire Bureau, has recently begun a new career. He has been appointed Fire Marshal of the U. S. Navy Building at Washington, D. C.

Chief Davis entered the Philadelphia Fire Department in 1895 and rose to the

Ross B. Davis

rank of Battalion Chief in 1910. He was appointed Chief of the department in 1920. Under his leadership, the city's fire losses were brought down such that Philadelphia has been near or at the top of the national honor roll for fire protection many times. Chief Davis will take up residence in Alexandria, Va.

Chief Davis is a past-president of the I.A.F.C., and was for many years President of the Eastern Fire Chiefs' Association.

Chief Ricker Appointed on Fire Defense Committee

Chief Engineer E. T. Ricker of the Saco, Me., Fire Department, has been appointed Assistant Administrator for the state of Maine and as Administrator for York County in a plan being setup by Chief O. T. Sanborn, Portland, Me., who is State Administrator of the Maine Fire Defense Committee. Chief Ricker will supervise the coordinating of fire department organizations in citise in Maine up to 20,000 population with the exception of Bangor, Lewiston and Portland.

Questionaires have been sent out to every department in the state of Maine to determine the apparatus and equipment available, the number of physicians, nurses, ambulances, Boy Scouts and other pertinent data. When all of the information is received, it will be broken down into sections so that it will be possible to ascertain exactly what is available in every part of the state. It has been pointed out by Chief Ricker, that even thouh an emergency never arises, information will be on hand for the formation of a mutual aid system as never existed in any section of Maine before.

Hartford Wins Grand Award

The city of Hartford, Conn., was declared the winner of the grand award in the 1940 Inter-Chamber Fire Waste Contest. Of the more than 300 cities competing, Hartford's record of fire prevention accomplishments was considered the best. Although Hartford has been first in its population class for the past five years, this is the first time that it has taken top honors against all competing cities.

The winning cities in the six population classes are: Philadelphia, Pa., Providence, R. I., Hartford, Conn., Lakewood, Ohio, Parkersburg, W. Va., and Salisbury, N. C. In addition to the winners there was a list announced of the cities that received honorable mention in the contest. The cities reporting in the contest had a per capita fire loss of $1.66 for the year 1940 as compared with an average per capita of approximately $2.00 for the country as a whole.

This annual competition is sponsored through the cooperation of the National Fire Waste Council and the Chamber of Commerce of the United States. The cities entering the contest are graded so that credit is given for fire loss records educational activities in fire prevention and permanent improvements to eliminate fire hazards.

Children Endangered in Movie Theatre

Thirty, out of an audience of 300 children, were overcome during a Saturday afternoon matinee in the Doric Theatre, Toronto, Ont., by the escape of coal gas from the heating system.

Some parent went to find his child in the theatre, and saw several children slumped in their seats, and no one in attendance. Help was called.

When District Chief Smith arrived, he found about thirty children unconcious on the sidewalk, and others very ill. Calls were sent for inhalators and doctors.

After a very thorough investigation had been made by Fire Marshal Scott of the Province of Ontario, he recommended to the Attorney General of the province tht the licenses of the theatre and motion picture operator be suspended for thirty days.

During the past twenty-five years, there has been no deaths from negligence in the operation of the 400 theatres in Ontario.

JOHN KARL LEE

Disaster Mobilization to Be Held

The third annual convention, mock disaster mobilization, parade, first aid contest and banquet of the Rockland County Emergency and First Aid Council, Inc., will be held in Nyack, N. Y., on May 17th. First Aid squads and First Aiders are cordially invited to take part in the day's program the purpose of which is to promote safety and improve and perfect the art of first aid and to coordinate all groups that might be needed in the Rockland County areas in the event of a major catastrophe. In addition to first aid contests, there will be numerous drills, exhibitions and demonstrations in first aid and emergency work.

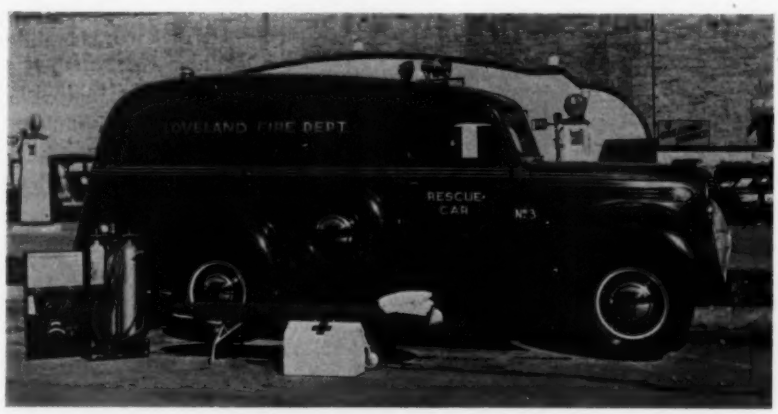
Women to Study Fire Fighting

It has been learned that the New York City Fire Department plans to teach 5,000 women to assist the department in fire prevention and fire fighting as a defense measure. Already at least 150 women have taken a preliminary course on fire prevention, meanwhile advanced courses in chemical warfare and industrial plant protection are being arranged.

Many women volunteers have been working in cooperation with the fire department since last fall, conducting surveys of types of buildings, fire hazards and compiling other vital information that would be important to the fire department in times of an emergency.

Chief Hartnett Given Testimonial

Several hundred persons were in attendance at a testimonial given in honor of Chief J. F. Hartnett of Dedham, Mass., the successor of the late Chief H. J. Harrigan, who lost his life in a fire last fall. Chief Hartnett received a gold badge, radio and wrist watch.



Truck Successfully Completes First Year

A little over a year ago, this rescue truck was purchased through the aid of the City of Loveland, Col., local organizations and citizens to answer all emergency calls in this vicinity, such as accidents and drownings. There are an average of six drownings a year in the many lakes included in this area. The equipment includes a first aid kit, stretchers, resuscitator, grapple hooks, life preservers, a twelve-foot boat and trailer and a five-horse-power portable motor.

N. Y. City Defense Plan Reviewed

After several months of extensive study, New York City fire officials have passed the paper stage in their plan to build up the fire department to enable it to cope with any emergencies caused by air attacks. Meanwhile manufacturers cooperating with fire department experts state that no time should be wasted in getting the program under way. They warned that tooling and mechanical preliminaries require about from three to six months before production is started.

There are many detailed phases to Commissioner J. J. McElligott's program. Foremost of these is the plan to train about 200,000 persons to act as a civilian auxiliary to the regular department and the consideration of increasing the present regular fire fighting force of 11,000 to 19,000.

There is also a plan to supplement each of the 400 firehouses with six sub-stations, each of these supplementary stations to be manned with sixty members of the civilian auxiliary supervised by a veteran. According to the plan, about 2,500 or 3,000 light mobile pumping units will be required. Department experts have designed a two-light-wheeled ladder truck and a motorcycle powered hose cart. There is also a provision for an increase in hose footage to 400,000 feet.

Pumping stations, erected at points along the East and Hudson Rivers in Brooklyn and Manhattan are so equipped that a mere turning of the valves in them will send salt water in underground mains. It is pointed out that additional sources of supply could be provided by the department's ten fireboats, by transformed sanitation flushers, and by especially designed, canvas-bodied tank cars.

Among Commissioner McElligott's many aides are Battalion Chiefs Frederick Wedemeyer and Daniel Deasy, and fireman George Scott. It may be recalled that these three recently returned to New York after studying the London fire fighters in action for more than three months. It is said that much of the plan has resulted from their observations.

Seattle Has Low Loss

The report of Chief William Fitzgerald of the Seattle, Wash., Fire Department shows that for the year, 1940, the total fire loss was $234,816, the lowest annual total since 1904. This record has been made despite the fact the values subjected to fire in 1940 were over three times greater than in 1904. In addition to this, over 130 lives were saved through the department's first aid service. There was a 27.1 per cent increase in overall fire prevention inspections and investigations made during 1940. The city's fire department is considered to be at the highest point of efficiency in its history.

Firemen Prepare for Bombings

Members of the New York City Fire Department have been receiving intensive training in the extinguishment of incendiary fires, such as those caused by aerial bombardment. This training is based on daily reports received from the British fire fighters.

England's lessons have taught that the most advantageous method of fighting incendiary bombings is to wet down the fires at night to prevent them from spreading, and then to extinguish them during the daytime when there is less danger from machine gunning and bombing.

The city has been studying the possibility of a pump, lighter than the trailer pumps that are used in England, which can be picked up off its chassis by four men and carried to wherever it is necessary.

Rohan New Chief at Holyoke

John H. Rohan, a member of the Holyoke, Mass., Fire Department since 1917, has been named Chief. He succeeds Chief P. J. Hurley, who retired after forty years of service, twenty-five of them as Chief.

For five years, Chief Rohan was in charge of the Fire Department schools in western Massachusetts conducted by the State Department of Education. He was placed on the Scott Medal Award Board honor roll in 1932.

Annual Report of New South Wales

The annual report of the Board of Fire Commissioners of New South Wales, Australia, issued last New Year's Eve, listed 10,633 calls in New South Wales, of which 7,202 calls were for fires in Sydney and 3,431 for fires in country districts. Of the total number of calls, 1,310 were false alarms. There were only three serious fires, those occurring in Sydney.

The peak month for fires was in January, 1940, when the heat was intense and Sydney was in the throes of a drought. The total was 1,776.

Fairfield May Have Paid Chief

A paid fire chief and a ladder truck will be asked for by the Fairfield, Conn., Fire Commissioners in the budget for the town's fiscal year which begins on July 1. At the present time, Fairfield has five volunteer fire chiefs, one attached to each of the companies.

In the event the plan goes through, Edward Von Holtz, Chairman of the Fairfield Fire Commission, explained that the volunteer chiefs would serve under the paid chief, who would have as part of his duties the training of the men in the five volunteer companies of the town.

Thomas J. Carroll, volunteer chief of the Fairfield Center Company, and a veteran firemen of the town, may be chosen for the paid office.

THOMAS F. MAGNER.

Fire Defense

What is the threat of incendiary bombs, sabotage and other forms of war incendiarism which are now facing American homes, cities and industry?

A book entitled "Fire Defense," just published by the National Fire Protection Association, Boston, Mass., deals with this question. The material included in the book covers the fire problem in war time with respect to air set fires, bombs, and sabotage, the activities involved in civilian defense, fire fighting, and the safeguarding of industrial production for defense.

There is also a report on British fire defense measures and a review of the fundamental principles which must be observed to assure that fires, due to sabotage or accidental causes, will not interrupt the flow of products off the production lines. The book contains 232 pages and 154 illustrations, and is priced at $1.50.

Battle Creek, Mich., Installs New Fire Fighter

This new fire truck, recently placed in the service of the Battle Creek, Mich., Fire Department, is said to be one of the first to be designed to cope with bomb-set blazes. In addition to a six-man crew, the following equipment is carried: One 300-gallon pump, a 150-gallon booster tank, two booster tank leads with fog nozzles, two ten-foot lengths of suction hose, six fire pails, two soda and acid extinguishers, two foamite extinguishers, two Pyrene extinguishers, two Indian fire pumps, a full set of fire fighting tools, double smoke mask equipment for two men, pipe plugs of various sizes to stop gas or water leaks, a device to shut off individual sprinkler leads, an inhalator, two fire resisting blankets, and a stretcher. Insert, Chief W. P. Weeks, who has been connected with the Battle Creek Fire Department for the past sixty-one years. A two-way radio installed in the truck enables Chief Weeks to travel from fire to fire, if necessary, without returning to the station.

20 IMPROVED FEATURES ADDED TO BUFFALO DESIGN

Effectiveness and Appearance of Buffalo Fire Engines Enhanced by Important Advances in Engineering

CONTINUOUS refinement—This is the keynote of Buffalo engineering, and is exemplified by the recent improvements which have been added to the performance-proven design and construction of Buffalo Fire Engines. Aimed, primarily, at providing greater utility and flexibility of service, the continuous "evolution" of Buffalo Fire Engines has also kept pace with the modern trend to streamlined simplicity.

Today's Buffalo models represent the ultimate in fire-fighting efficiency, in long-term dependability and in streamlined beauty—equipment which fire companies can justly be proud of both for appearance and for performance.

Every Buffalo Fire Engine is a *balanced* piece of equipment—chassis, engine, body, equipment—all mechanically coordinated for peak performance in the severest emergencies. That is why every community "protected by Buffalo" is safeguarded by the most effective apparatus known to the art and science of fire-fighting.

Added to the time-tested quality and dependability of Buffalo Fire Engines are many new features.

New Grille Assembly and Bumper

Fine appearance of the new grille and bumper in gleaming chrome wins the eye at first glance. Yet, behind this trim appearance is greater strength and serviceability. The vanes of the grille are of deeper section, more rugged. The bumper, one inch deeper and of improved shape, affords greater protection to radiator and fenders. Bumper grommets are longer and thicker.

Sealed Beam Headlights

Pioneered by Buffalo for fire apparatus, sealed beam headlights are now standard equipment on all Buffalo models. This *improved* illumination is an important contribution to speed and safety. Headlight bodies are chrome plated.

Rotary Door Locks

This Buffalo feature appeals to the practical fireman. It provides positive locking of the doors with quick, easy action. Prevents necessity of slamming doors when closing.

Two Roomy Glove Boxes

Not one, but two large dash glove boxes are now included as standard equipment. These boxes are 12 inches wide by 14 inches deep. There are six extra compartments for miscellaneous equipment.

All Steel Canopy Cab Available

The new models of Buffalo Fire Engines are available with all-steel *safety* canopy cabs. There are five styles of cabs, open or closed, accommodating from three to eight men. Also all-steel sedan bodies.

Other Important Features

These include: more attractive belly band moulding . . . body rail stanchions in chrome . . . instrument board in red fire krinkle lacquer . . . new design rubber moulding for body separators . . . attractive emblem on grille dome . . . high turbulence engine heads . . . bright metal frame on cab door windows . . . improvements in cab construction . . . upper half of cab interior lined . . . multiple seating on open models is available.

Wide Range of Horse Power

Whatever the requirements of your community, there's a Buffalo model to meet your needs. The Buffalo line of Fire Engines ranges from 500 to 1500 g.p.m. in triple and quadruple combination models and a wide selection of engine horsepower. . . . Full particulars gladly sent on request.

Buffalo Fire Appliance Corporation,
44 Central Avenue, Buffalo, New York.

Top photograph shows the trim, streamlined beauty of Buffalo Fire Engine design—a design which combines attractive appearance with the latest advances in fire-fighting efficiency. Lower photograph shows the impressive "nose" of a Buffalo engine—rugged, practical.

(Advertisement)

COMPLETELY NEW! JUST PUBLISHED

If You Believe in Keeping Up-to-Date You Need a Copy of

FIRE SERVICE HYDRAULICS

By Fred Shepperd, B. Sc., M. E.

(Editor of FIRE ENGINEERING, and author of such famous and widely used books as "The Fire Chief's Handbook", "Simplified Fire Department Hydraulics" and others.)

254 pages, 185 illustrations flexible Fabrikoid binding

CONTENTS

Chap. 1 Principles of Hydraulics

Chap. 2 Suction and Drafting of Water

Chap. 3 Velocity and Discharge
including Nozzle Reaction, discharge tables for all sizes of Fire Nozzles—small to large.

Chap. 4 Friction Loss Calculations
including calculations for all sizes of hose from ¾" to 3½" and tables of friction losses for all sizes.

Chap. 5 Calculating Engine and Nozzle Pressures
including solutions of problems consisting of single lines, siamesed lines, branched lines; a new method for solving problems involving ¾" to 2" hose; also unlined linen hose from ¾" to 3½" diam.; open butt calculations; lines laid up an elevation or down an incline; standpipe problems; water tower problems; deck gun calculations; pumpers in relay; Bresnan distributor calculations; fog nozzle calculations; quick pressure calculations; foam stream calculations; dewatering siphon calculations.

Chap. 6 Fire Hydrants and Mains
including friction loss calculations; flow calculations; discharge from fire hydrants.

Chap. 7 Fire Streams
including use of nozzles; range of streams; causes of defective streams; proper placement of pipes for good street streams; water hammer, or ram; proper use of shut-off nozzles; electrical conductivity of fire streams.

Chap. 8 Sprinkler System Calculations

Chap. 9 Fire Apparatus Pumps
including descriptions of piston, rotary and centrifugal fire apparatus pumps; calculation of discharge from pumps; pump primers; parallel-series type of pump; pump horsepower calculation; pump discharge at different pressures; ratings of pumps; pump slippage; maximum pressure limitations.

Appendix: Tables Covering the Following:
Static pressures; fire streams supplied by different sized mains; contents of cylinders, cylindrical tanks, cisterns; circumferences and areas of circles; square roots; conversion tables; ranges of fire streams; friction loss in hose; discharges from nozzles.

This new book brings thoroughly up-to-date the subject of hydraulics as it pertains to every phase of fire fighting—in simpler, more understandable, and more complete form than ever. Not only that, it embraces, as well, many important new angles that have never before been covered anywhere. For example, there are new formulas of greater accuracy for finding friction loss and nozzle and engine pressures of small fire hose layouts; methods are shown for making quick hydraulic calculations at fires without the aid of pencil and paper; friction loss in water mains and hydrants is fully covered; calculations are given for automatic sprinkler systems, as well as for Bresnan distributor, fog nozzle and dewatering siphon problems. These are only a few of the new things.

If you now have a copy of Shepperd's "Simplified Fire Department Hydraulics" (originally issued in 1928 but now out of print), you will certainly want "Fire Service Hydraulics". *It is completely different* and nearly twice as large. Every bit of the text is new and so are all of the numerous illustrations. There are several brand new formulas, originated by Mr. Shepperd, and even old ones have been simplified or revised for greater accuracy.

All in all, "Fire Service Hydraulics" is a book every progressive fire fighter from the Chief down needs and should have. It is a "must" particularly for men studying for promotion because it gives the answers to many new questions that are bound to come up in future examinations.

$3.00 per copy postpaid

Order your copy today. If it doesn't come up to your expectations, return the book in good condition within 5 days and we'll refund your money without a word.

CASE-SHEPPERD-MANN PUB. CORP.
24 W. 40th St., New York

Please send me ..... copies of FIRE SERVICE HYDRAULICS at $3.00 per copy, postpaid.

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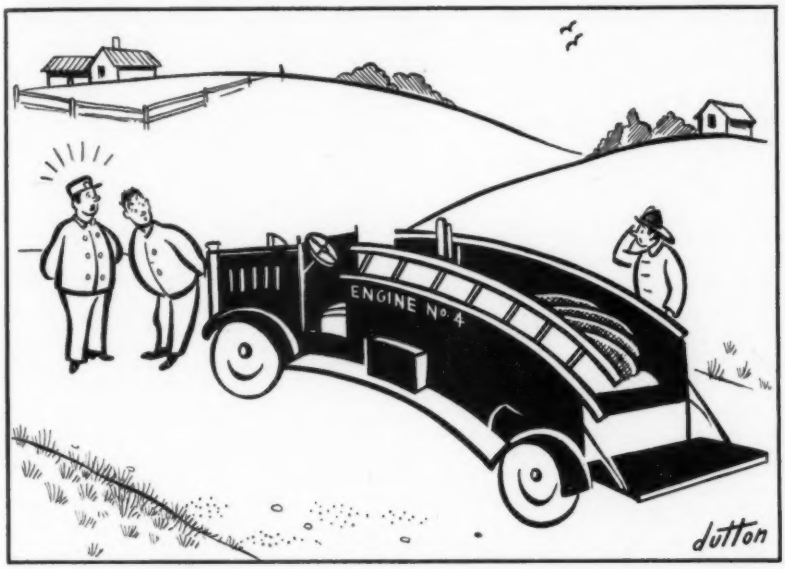
FALSE ALARMS



"It must have happened when we went around that last sharp turn!"

YOU'RE IN THE NAVY NOW

A young ensign, very insistent he must have leave, was asked the reason by his commanding officer.

"My wife is expecting a baby," he replied.

"Listen, young man, remember this, you are only necessary at the laying of the keel. For the launching you are entirely superfluous."

And a brandied peach is always sure of a cordial welcome.

"THROW THE BULL" CHIEF

The city fire fighter was out walking in the country and on crawling under a fence, he found himself in a pasture with a vicious-looking bull.

"Hey, there," he called to a farmer, "is the bull safe?"

"He sure is," answered the farmer. "A durn sight safer than you are."

The girl who knows the facts of life isn't nearly as popular as the girl who teaches them.

TRY FERTILIZER

A farmer was hauling a load of manure past one of the mental institutions, when he was hailed by one of the inmates; "Hey, where are you going with that stuff?"

"Going to put it on my strawberries," replied the farmer.

"That beats it," said the inmate, "we put sugar on ours and they call us crazy."

They say that they had to wait an extra ten minutes to tell Smokey Joe that he was the father of quadruplets because he was shaving at that moment.

IT WOULD MELT

At the breakfast table in a local restaurant one morning, the Chief was reading in the paper where a couple in Colorado were buried in a snowdrift for eighteen hours. He turned to the waitress and asked,

"How would you like to be buried for eighteen hours in a snowdrift with your sweetie?"

And all she said was: "Say, if me and my sweetie was buried in a snowdrift, we'd be swimmin' in twenty minutes."

Youth must be served and then carried out.

A MERE DIFFERENCE

Here's the difference between a politician and a lady: When a politician says "yes," he means "maybe." When he says "maybe," he means "no." If he says "no," he is no politician.

When a woman says "no," she means "maybe." When she says "maybe," she means "yes," and if she says "yes," she's no lady.

When a guy claims his gal is cold, he should remember that so is dynamite until you start fooling around.

THEM NEW FANGLED WORDS

A few years ago, a survey was being conducted to determine the number of Technocrats in a certain area. One of the men conducting the survey was questioning a farmer's wife, and asked her if her husband was a Technocrat. She called upstairs and said, "Ole, are you Technocrat?" He yelled back, "No I'm just shaving."

It's bad form when a girl wears a beach coat over her bathing suit. If it weren't, she wouldn't have to wear one.

LET HIM GUESS

Junior Partner: "The manager at Kiwash is apt to take too much on himself. I gave him plainly to understand he must get authority from here instead of acting too much on his own responsibility."

Senior Partner: "Yes, so I gather. Here's a telegram from him."

The telegram read: "Office on fire. Please wire instructions."

The girl whose face would stop a clock, often has a figure that will stop traffic.

A TOOTH FOR A TOOTH

The Chief was interviewing a prospective rookie in an effort to determine the type of departmental work for which he was best fitted.

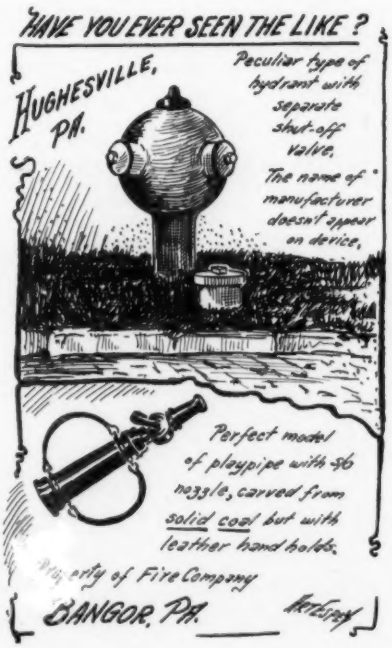
Chief: "What can you do, boy?"

Prospect: "Anything, sir."

Chief: "Can you wheel a barrow full of smoke?"

Prospect: "Certainly, sir, if you will fill it."

Before marriage a girl has to kiss her man to hold him; after marriage she has to hold him to kiss him.


HAVE YOU EVER SEEN THE LIKE?
HUGHESVILLE, PA.
Peculiar type of hydrant with separate shut-off valve. The name of manufacturer doesn't appear on device.
Perfect model of playpipe with 36 nozzle, carved from solid coal but with leather hand holds.
Property of Fire Company
BANGOR, PA.

Manufacturers' Announcements

Indian Fire Pumps

Water holds its position as the most generally used agent for fire fighting. Fire departments recognize this as they are equipping with large booster tanks so that they will have plenty of available water for emergency fires, and they are equipping with the Indian five-gallon back-pack fire pump, which may be carried in the hand or thrown on the back like a pack basket. With slow, easy working of the solid brass pump, a 30 to 50 ft. stream may be had. "Large numbers of fire chiefs in the cities and in rural sections use this hand five-gallon back-pack fire pump on from 50% to 75% of all their fire calls, for fighting fires in buildings of all kinds, as well as for grass, brush and spot fires on the outside," states the maker of this appliance.

Indian Fire Pump in Use

By being able to carry this equipment on the back like a pack-basket, one has the freedom of both hands, and can get to awkward locations to get right at the fire and can use either a small or large amount of water, as is necessary.

"Where fires do a great damage in outlying sections of communities, where fire companies must make very long runs to get to the fire, those who have a supply of these five-gallon pumps have so many times checked the spread of fires quickly, before any other help could arrive," the company states.

"By the time apparatus arrives, the fire has often extended over a wide front, and frequently several buildings are threatened at the same time."

These pumps are made by D. B. Smith & Company, Utica, New York, who have been in the pump business for over fifty years.

Pumper Deliveries Announced

New Jersey Fire Equipment Company, North Avenue, Dunellen, N. J., has announced deliveries of a Pirsch 500-gallon pumping engine to Parry, N. J., and a 500-gallon Pirsch triple combination pumper to Lincroft, N. J. During the latter part of April, the com pany will deliver a Pirsch Type 20, 500-gallon pumping engine with a 900-gallon booster tank to Vineland, N. J.

H. W. Lange Receives Appointment

H. W. Lange, who has been associated with the Underwriters' Laboratories since 1926, has been appointed Chief Engineer in the Fire Division of the Cardox Corporation, Chicago, Ill. He will direct the engineering activities in connection with bulk carbon dioxide fire extinguishing systems.

During the past fifteen years, Mr. Lange has conducted many investigations and fire tests on portable extinguishers and extinguishing systems. He assisted in the establishment of rigid sets of scientific standards for fire extinguishers.

Grippon Nozzle Holder

The Grippon Nozzle Holder, a new quick acting holder for clamping any type of nozzle, playpipe, coupling, adapter, hydrant connection or siamese having a 2½-inch opening, has been announced by the American LaFrance-Foamite Corporation, Elmira, N. Y. It is claimed that this new holder will grip any appliance so securely that it cannot be jarred loose, yet the appliance may be removed instantly. With the Grippon Holder, it is not necessary to screw or unscrew the appliance. Mounting or releasing is accomplished merely by pressing down on a small handle.

Mounting a Nozzle on the Grippon Holder

Akron Drop Forged Rocker Lug Coupling

The Akron Brass Manufacturing Company of Wooster, Ohio, recently announced that they have taken over the drop forged "Rocker Lug" coupling with swivel protectors.

This coupling is made of special composition brass which possesses unusual strength and, through the process of manufacture by drop forging, attains characteristics which make it particularly suitable for hose couplings. In tests conducted by the Underwriters' Laboratories, the coupling was subjected to a maximum pressure of 825 pounds per square inch, at which pressure the hose burst, but the coupling disclosed no evidence of distortion or cracking of the material.

The company recently announced a contest for a name for the coupling. Prizes will be given to the winners of the contest, which will be limited to those engaged in fire fighting organizations. This contest is to close on June 30, 1941.

Officers to Be Chosen on Ability

A recent resolution of Greenport Pumper No. 1 of Greenport Center, N. Y., provides that in the future, all line officers of the company must be graduates of Columbia County Fire School.

This step in promoting fire fighting efficiency and administration, has had the written approval of the National Board of Fire Underwriters. This resolution does away with the old custom, still practiced by many departments, of changing company officers and Chiefs yearly or twice a year.

The election of officers on their proven fire fighting ability is a forward step in increasing tactical and strategical ability of fire officers.

Fireman Dies—Others Injured

Four firemen were seriously injured, and another died after admittance to a hospital, when the roof of a one-story frame building at the plant of the New England Auto Body Works on Wooster Street, New Haven, Conn., on March 9, collapsed while firemen were fighting a fire inside the structure.

A hoseman died of a fractured skull after being rushed to the hospital.

The blaze had been brought under control when the roof, covered with nearly a foot of snow, caved in. Firemen and spectators lifted portions of the roof so that the trapped victims could be brought out. Fireman McGarry was dragged out when a resident of the district crawled on his stomach into the wreckage to reach him.

THOMAS F. MAGNER.

Complete First Aid Course

Chief Arthur Olsen of the Omaha, Neb., Fire Department, presented certificates to twenty-four city firemen on their graduation from a school of life saving.

These men had received a two weeks' course in the standard and advanced Red Cross courses of first aid in order to enable them to cope with any emergency until the department doctors can take over.

Rod A. Porter Appointed Chief

Rod A. Porter was recently appointed the new head of the Portage, Wis., Fire Department, succeeding the late Chief Chester I. Sroka who died in February.

All your needs for Fire Alarm Supplies *Are in our active File!*

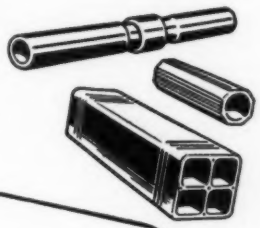
Because of GRAYBAR'S all-inclusive service to municipalities throughout the nation, there are no blanks in our active file. *All* your fire alarm needs for complete central office and field construction as well as for maintenance and repair work are promptly available from this one-call source. For prompt delivery on outstanding supply lines, call GRAYBAR today.

TOOLS

TERMINALS

SIRENS

CONDUIT



For safety and dependability, underground fire alarm wiring is at the top of the class. Orangeburg *Standard* and *Nocrete* fibre conduit offers extra economy and flexibility. *Natco* Single or Multiple Duct clay conduit is available in types for high or low tension lines. GRAYBAR will be glad to give you all the facts and figures.

CABLE

BOXES

Horni Standard and Compositrol fire alarm boxes have security features found in no other box. They automatically protect against loss of alarms when operated under abnormal line conditions. Positively non-interfering. *Horni* boxes are simple to install, inspect and maintain. A staff of GRAYBAR specialists is always "on call" to aid you in planning a new system or extending or modernizing your old one.

BATTERIES

Philco Batteries are available in models to meet any fire alarm requirement, for both attended and unattended locations. Long life and reliability are assured. The type 52CF, for example, gives 180 hours reserve in fire alarm service and has a rating of 18 ampere hours at the 100 mil. discharge rate. Ask GRAYBAR for the complete story on these batteries.

ARRESTORS

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Your Problem:

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The Answer:

EMERSON RESUSCITATOR, INHALATOR & ASPIRATOR

Since its introduction at the International Convention at Spokane, the Emerson Resuscitator has achieved an unprecedented leadership in the field of life-saving in this country.

The reason of this is that it is so compact, light weight, foolproof and human in its automatic self-adjusting breathing, in its aspiration of froth and mucus from the patient, and in its administration of oxygen or CO_2 mixtures.

Another factor of importance has been the fact that it was designed, developed and is manufactured by the largest manufacturer specializing in resuscitation equipment in the United States.

Write for literature or an actual demonstration.

J. H. EMERSON CO.

Builders of the Modern Diaphragm Iron Lung

22 Cottage Park Avenue
Cambridge, Mass.

The Round Table

(*Continued from page* 177)

plemented by safety chains for better protection.

Every trailer must be equipped with a reliable system of brakes with reliable provisions for operation from the driver's seat of the vehicle drawing it.

Each trailer must be provided with side lights and a tail light.

Every tank truck and trailer shall be equipped with at least one approved hand fire extinguisher of a type suitable for extinguishing oil fires.

C. H. Hatfield, Chief, Zanesville, Ohio: I believe that proper laws regarding overloading of tank trucks should be passed. Equipment such as brakes and static chains should be constantly checked to see that they are in first-class condition.

Michael Kenna, Chief, Hartford, Conn.: I believe all tank trucks should be equipped with automatic self-closing valves on compartments. These remain closed while the truck is in transit, and can be opened by the driver only when the truck is stopped and ready to dump a load.

W. R. Price, Chief, Springfield, Mo.: Our ordinance for inflammable liquids provides that "tanks in excess of 600 gallons capacity shall be subdivided into compartments, none of which shall exceed 600 gallons capacity. Each tank compartment shall be provided with a suitable operating vent, and in addition thereto venting facilities of such size and capacity as will prevent rupture of the tank from such internal pressures as may be created by exposed fires. Every tank truck shall be provided with properly attached rear steel bumpers. The rear bumpers or chassis extension shall be so arranged as to adequately protect the draw-off valve or faucets in case of collision.

"Each compartment of a gravity discharge truck tank shall be equipped with a reliable and efficient shut-off valve located inside the shell of the tank in the compartment outlet, and except during delivery operations, such valves shall be automatically kept closed, or shall be so interlocked with delivery operation that it will be mechanically closed when delivery operations are completed.

"The operating mechanisms for such valves shall be provided with a secondary control, remote from the tank filling parts and discharge faucets for use in event of accidents or fire during delivery operations, and such control mechanism shall be provided with a fusible point which will cause valves to close automatically in case of fire.

"In every case there shall be provided between the shut-off valve seat and discharge faucet a shear section which will break under strain and leave the shut-off valve seat intact.

"Tanks, chassis, axles and springs shall be metallically connected. Tank trucks shall be equipped with a drag chain long enough to reach the ground. During the filling operations electrical contact shall be maintained between the fill pipe and the tank truck.

"All trailers shall be firmly and securely attached to the towing vehicle by means of suitable draw-bars, supplemented by safety chains.

"Every trailer shall be equipped with a reliable system of brakes with reliable provisions for operation from the driver's seat of the vehicle drawing it.

"Each trailer shall be provided with side lights and tail light."

Chris Smith, Muskegon, Mich.: The only trouble we have had with gasoline tank trucks was due to the fact that the gasoline frequently overflowed in the filling of underground tanks. The gasoline, however, did not ignite.

In the event of a fire, I would use foam or a 2½-inch fog nozzle water line.

W. O. Blackwell, Chief, Spartanburg, S. C.: I believe gas tank trucks should be kept off the main streets of cities.

John O. Nygren, Chief, Joliet, Ill.: A tank stalled on the approach to one of our bridges. As the truck was on an incline, the gasoline leaked out of the filler cap and ran down the gutter into the sewer outlet. We flushed the street and thus prevented fire.

I believe that the Interstate Commerce Commission should stop gasoline transports from going through congested or business districts.

Albert Luedeke, Chief, Freeport, Ill.: I believe the driver of a tank truck should inspect his tanks very often to see that they are all right and to see that the truck is properly grounded. He should have the proper fire extinguishers on his truck.

F. W. Donnelly, Chief, Lincoln, Neb.: I believe it is necessary to legislate against large transports using streets in high value districts.

August Schmidt, Chief, Rock Island, Ill.: I believe the Fire Department can guard against this hazard by forcing the oil companies to install large bumpers on the rear of their trucks.

J. L. Croom, Wilmington, N. C.: I have had several accidents involving gasoline trucks, but the gasoline has not ignited in any case. I washed the streets and flushed the gasoline into the gutter and drain.

M. L. Butler, Acting Chief, San Antonio, Tex.: My suggestion would be to have garages and other establishments using gasoline install larger storage tanks so that there will be fewer gasoline tank trucks on the streets.

N. A. Phelan, Chief, Pittsburgh, Pa.: I have had many experiences with accidents involving gasoline tank trucks, two of which are outstanding. A city ordinance places a limit of 1,500 gallons on any gasoline tank truck traveling over the streets within the city limits.

On a Sunday afternoon, a tank truck loaded to capacity was coming down a ramp in the high value district when the brakes failed. The driver turned from the ramp into an intersecting street and the truck overturned. The entire contents ran out on the street and immediately ignited. A citizen sounded an alarm and a Battalion Chief immediately transmitted five alarms as a precautionary measure, due to the fact that the street for an entire block was afire.

Ordinary hose streams and spray nozzles were used to extinguish the fire and wash the gasoline into the sewers. As this was but one block

from the river, it did not create a hazard by washing it into the sewer. The first lines were used to drive the fire away from the truck, as the operator and his helper were in the cab. It was necessary for the firemen to reach in with plaster hooks and pull the bodies out. They were burned beyond recognition.

In another case, a tank truck skidded and knocked the valves off the rear of the tank. This was on a very narrow street. The gasoline became ignited and covered the street for 500 feet in each direction. We used solid streams and one spray nozzle. The solid streams were used to wash the gasoline into the sewer and to extinguish the fire in the many houses along the street. The intense heat had ignited fifteen dwellings. The spray nozzle was used to drive the fire away from the tank while firemen drove a wooden plug into the opening. As this fire occurred a great distance from the river, I had the manhole covers removed and lines with open butts running into the sewer, with men stationed there to prevent anyone approaching the sewer openings with lighted cigars, etc. The water was kept running into the sewer until all of the gasoline was entirely washed out.

I believe that there should be a law passed placing every safeguard about these tank trucks, such as a limited capacity, and restricting them from entering certain districts. Tanks should be divided into sections so that in case of rupture of the tank there would be a limited amount of gasoline spilled on the street. The outlet valves should be protected and each truck should be inspected at frequent intervals by an inspector with authority to order a truck from the streets if it is not in running order. This should be a state law rather than a city ordinance, for in the latter case, the oil companies comply with the city ordinance, but in the suburban districts with limited fire protection, they will not use precautionary measures.

Zephrin F. Drouin, Chief, Lewiston, Me.: We have never had any experience with accidents on our streets involving gasoline tank trucks.

I believe Chiefs should try to get an ordinance in their cities which would insist that gasoline trucks be thoroughly inspected before and after each trip to see that all equipment is in condition. This inspection should include the driver, who should be reminded of his safety rules.

Each tank, tank trailer and semi-trailer should be equipped with both foam and carbon dioxide extinguishers in the event of fire.

Tom Biggs, Chief, San Angelo, Tex.: So far we have not had any regular gasoline tank trucks catch on fire. We have had a number of fires involving trucks and automobiles which were carrying storage tanks for their own use.

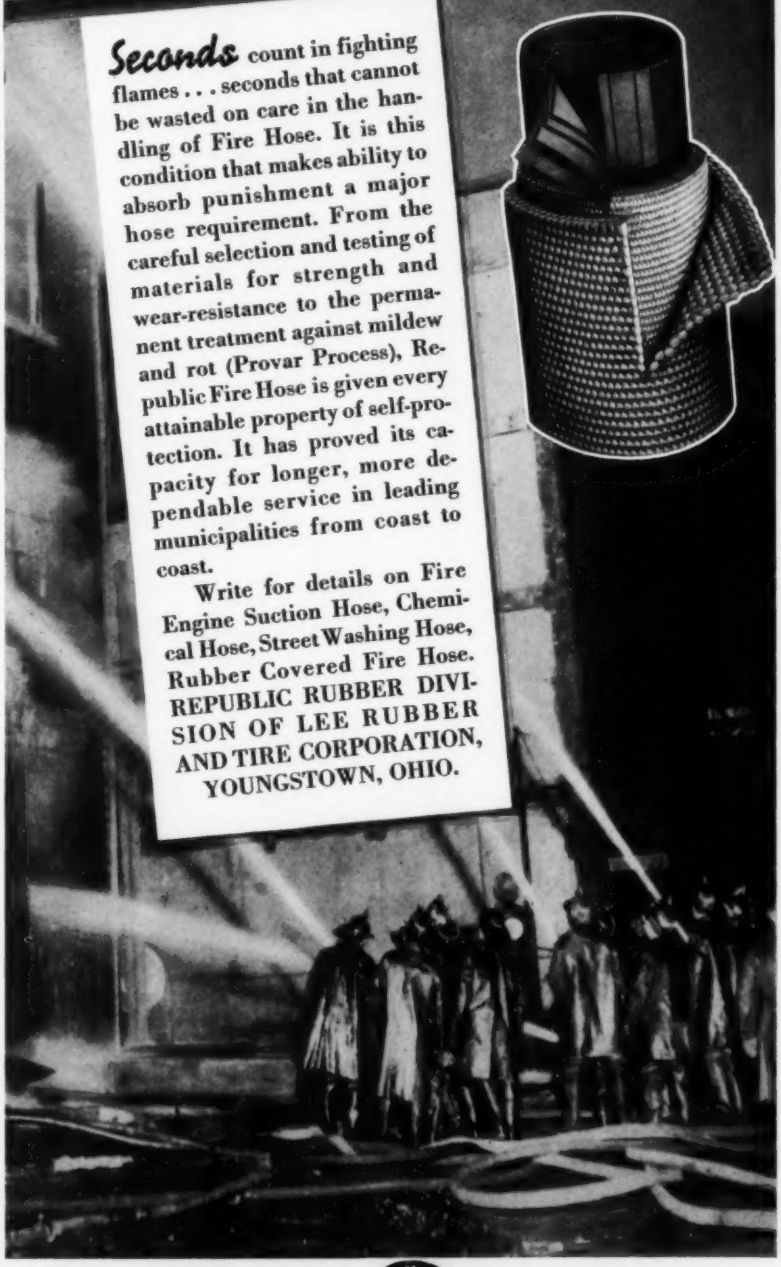
We have used foamite extinguishers and fog nozzles on these small tank fires and have been very successful.

I believe the best way to guard against this kind of fire hazard is to keep the Fire Department well equipped to handle such fires.

Knowing how to use this equipment properly is very necessary.

REPUBLIC FIRE HOSE

A TOUGH HOSE FOR A TOUGH JOB



Seconds count in fighting flames . . . seconds that cannot be wasted on care in the handling of Fire Hose. It is this condition that makes ability to absorb punishment a major hose requirement. From the careful selection and testing of materials for strength and wear-resistance to the permanent treatment against mildew and rot (Provar Process), Republic Fire Hose is given every attainable property of self-protection. It has proved its capacity for longer, more dependable service in leading municipalities from coast to coast.

Write for details on Fire Engine Suction Hose, Chemical Hose, Street Washing Hose, Rubber Covered Fire Hose. REPUBLIC RUBBER DIVISION OF LEE RUBBER AND TIRE CORPORATION, YOUNGSTOWN, OHIO.

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The New

HUXBAR

1. *Opens Inside Doors*
2. *Opens Outside Doors*
3. *Cuts Plaster*
4. *Cuts Tin Roofs*
5. *Opens Windows*

14 Other Uses!

The Huxbar saves money, saves time—improves efficiency of fire departments, large and small—because with miraculous speed and ease it performs fire-fighting and rescue tasks formerly requiring many separate tools.

The Huxbar is easily mounted on apparatus, as it is only 36" long and weighs but 8½ lbs. Made of heat-treated nickel chromium alloy steel.

Sold by Fire Fighting Equipment and Municipal Supply Houses Everywhere. Write for descriptive folder including photographs of the Huxbar in use by firemen and policemen.

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U. S. Firemen Give Canteen

(*Continued from page* 185)

R. B. Woolley, Larchmont, N. Y.	4.00
Mr. & Mrs. John F. Stern, Larchmont, N. Y.	2.00
Mr. Philip Webster, Toledo, Ohio	1.00
Irvington Fire Co. Social Service Fund	25.00
Port Chester Fire Policy No. 1	11.00
Hope Hose Co. No. 1, Tarrytown, N. Y.	10.00
Centennial Hose Co., Peekskill, N. Y.	5.00
Exempt Firemen's Benevolent Ass'n of Yonkers, N. Y.	5.00
North White Plains Fire Co., No. 1	5.00
Ossining Hose Co. No. 1	5.00
Ossinging Steamer Co.	20.00
Holla Hose Co., Ossining	2.00
North End Hose Co. No. 6, Scarsdale	5.00
Mutual Engine & Hose Co. No. 1, Mt. Kisco, N. Y.	5.00
Waverly Engine Co. No. 1, Town of Eastchester (Tuckahoe)	10.00
Evart C. Hugh, Larchmont, N. Y.	10.00
Milton Point Hose Co., Rye, N. Y.	10.00
Poningo Hook & Ladder Co., Rye, N. Y.	5.00
Poningo Hook & Ladder Co., Rye, N. Y.	10.75
Poningo Engine & Hose Co., Rye, N. Y.	18.00
Rye Fire Dept., Rye, N. Y.	6.25
Chemical Eng. No. 1, Croton on Hudson	5.00
Clinton Hook & Ladder Co., Truck 1, Mt. Vernon, N. Y.	5.00
Armonk Independent Fire Co., Inc.	10.00
Wash. Eng. & Hose Co. No. 4, Port Chester, N. Y.	11.00
Rescue Hose Co. No. 1, N. Tarrytown Fire Dept.	10.00
Hilltop Engine No. 1, N. Tarrytown Fire Dept.	5.00
Thornwood Fire Co., Thornwood, N. Y.	11.00
Ogden Eng. Co. No. 1, Dobbs Ferry, N. Y.	5.00
Monitor Hose Co., Ossining Fire Dept.	5.00
Riverside Hose Co., Tarrytown, N. Y.	10.00
Somers Fire Dept., Somers, N. Y.	17.00
Yorktown Hgts. Engine Co. No. 1, Village of Briarcliff Manor Fire Dept.	10.00
Briarcliff Hook & Ladder Co.	10.00
Briarcliff Fire Pump Co.	10.00
Scarborough Fire Co.	10.00
Individual contributions from Briarcliff Manor Fire Dept.	11.75
Chappaqua Fire Co. & I. D. Bristol Engine Co.	10.00
Chappaqua Fire Patrol Co.	10.00
Chappaqua Independent Fire Co.	5.00
Chappaqua Fire Dept.	16.25
Pioneer Engine Co. No. 1, Pleasantville, N. Y.	10.00
Pleasantville Fire Dept.	92.60
Port Chester Residence Window Cleaning Co.	6.50
Mellor Eng. & Hose Co. No. 3, Port Chester, N. Y.	8.50
Harry Howard Hook & Ladder Co. No. 1	12.00
Reliance Eng. & Hose Co. No. 1	15.00
Putnam Eng. & Hose Co. No. 2	14.00
Brooksville Hose Co. No. 5	11.25
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Tuckahoe Hose Co. No. 1, Eastchester, N. Y.	5.00
Senate H. & L. Co., Ossining, N. Y.	3.00
Independent Hose Co. No. 6, Ossilning, N. Y.	5.00
Ardsley Hose Co. No. 1, Ardsley, N. Y.	5.00
Washington Engine Co. No. 2, Tarrytown, N. Y.	5.00
Columbian Hose Co., Peekskill, N. Y.	5.00
Consolidated Engine Co. No. 1	10.00
Washington Engine Co. No. 2	5.00
Peekskill Fire Dept.	2.00
Resolute Hook & Ladder No. 1, Dobbs Ferry, N. Y.	5.00
Mr. & Mrs. Charles Sheldon, Larchmont, N. Y.	10.00
Independent Fire Co., Inc., Mt. Kisco, N. Y.	15.00
Katonah Fire Dept., Katonah, N. Y.	10.00
Hawthorne Fire Co. No. 1, Hawthorne, N. Y.	15.75
Cataract Hose Co. No. 2, Ossining, N. Y.	5.00
Union Hose & Engine Co. No. 2, N. Tarrytown Fire Dept.	10.00
Purchase Fire Dept., Inc., N. Y.	16.00
Colombia Hose Co., N. Tarrytown, N. Y.	5.00
Edw. W. Hicks, Consolidated Signal Co., Elmsford, N. Y.	5.00
Ian S. Danton, Tarrytown, N. Y.	1.00
Victor E. Parke, Tarrytown, N. Y.	1.00
Wm. L. Harvon, Tarrytown, N. Y.	1.00
T. K. Bibb, Detroit, Michigan	1.00
John H. Mathens, Detroit, Michigan	1.00
Harold Gross, P. O. Dept., Tarrytown, N. Y.	.05
Hook & Ladder, No. 1, Harrison, N. Y.	10.00
Harrison Exempt Firemen's Ass'n	5.00
Engine & Hose Co. No. 1	10.00
Chemical & Patrol Co.	10.00
Members of Paid Dept., White Plains, N. Y.	72.50
Hook & Ladder No. 1	10.00
Hook & Ladder No. 1	12.00
Chatterton Engine Co. No. 5	25.00
Chatterton Engine Co. No. 5	31.00
East Side Co. No. 3	10.00
East Side Co. No. 3	3.70
Independent Engine No. 2	10.00
Independent Engine No. 2	3.50
Hope Truck Co. No. 1	5.00
Hope Truck No. 1	5.00
Fire Patrol No. 1	5.00
Fire Patrol No. 1	4.20
South Side Engine No. 4	10.00
South Side Engine No. 4	7.75
Exempt Firemen's Ass'n	5.00
Chief Griffen	.25
Protection Engine Co. No. 1, Hastings on Hudson	10.00
Uniontown Hose Co. No. 2	5.00
Riverview Manor Hose Co. No. 3	20.00
J. W. V. ch. No. 32	16.00
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Exempt Firemen's Ass'n, New Rochelle, N. Y.	10.00
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Larchmont Fire Dept.	1.40
S. Brady, N. Tarrytown, N. Y. (Chevrolet Motor Co.)	1.00
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Alfred Kunge, New Rochelle, N. Y.	1.00
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Rotary Club, Scarsdale, N. Y.	5.00
Croton Fire Patrol Co. No. 1, N. Y.	5.00
Elmsford Fire Dept., N. Y.	7.00
Ladies Auxilliary Rescue Hose Co., N. Tarrytown, N. Y.	10.00
Riverside Hose Co., Tarrytown, N. Y. (James J. Taxter, $1.00; Raymond Edlesa, $1.00; Thomas Vincent, $1.00)	3.00
Mt. Vernon Fire Dept. Truck Co. No. 3	$2.50
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Chief John Gibson (Fire Dept.)	6.00
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Yonkers Fire Dept., Headquarters	15.50
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Engine 6—Yonkers, N. Y.	3.00
Engine 7—Yonkers, N. Y.	5.00
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Engine 11—Yonkers, N. Y.	4.00
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Yonkers Paid Fire Dept.	50.00
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Wm. N. Ensign, N. Tarrytown, N. Y.	10.00
Nicholas Fallace, Jr., Somers, N. Y.	.50
Pound Ridge Fire Dept., N. Y.	6.15
Conqueror Hook & Ladder Co. No. 1, Tarrytown, N. Y.	10.00
Mrs. Arthur Ginniver, "Polly," New Rochelle	5.00
Katonah Fire Dept., N. Y.	7.00
Unnamed member—Yonkers Fire Dept.	.25
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Andrew Del Collo, N. Pelham Fire Dept.	3.00
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McGraw Hill Publishing Co., Employees, N. Y. C.	4.83
Chemical Engine Co. No. 4—Mt. Vernon, N. Y.	5.00
Rescue Hook & Ladder No. 1, Tuckahoe, Eastchester, N. Y.	11.00
Union Corner Eng. & Hose Co., Eastchester, N. Y.	6.00

Greenville Fire Dept., Scarsdale, N. Y...	11.50
Croton Falls Fire Dept., Croton, N. Y...	9.10
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Town of Mamaroneck Fire Dept.	25.00
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Employees, Town of Mamaroneck (R. Le Vino)	3.10
Bedford Hills Fire Dept.	5.00
Harmon Fire Dept., Harmon, N. Y.	5.00
N. White Plains Firemen's Benevolent Assn., Inc., N. W. Plains	5.00
Total Deposits made to February 27, 1941	$1,076.95

Bibliography on Detection of Arson

The Mill Mutual Fire Prevention Bureau, 400 West Madison, Street, Chicago, Ill., has published a booklet entitled "A Selected Bibliography for Fire Insurance Company Investigators and Others Engaged in the Detection of Arson and Kindred Crimes." The list of books, bulletins and pamphlets, and articles appearing in periodicals was compiled by R. C. Steinmetz, Chief Special Investigator of the Fire Investigation Department of the Mill Mutual Bureau. Only a limited number of these bibliographies are available for distribution.

N. Y. City Has Two Quiet Months

New York City was rather quiet, as compared to other years, for the first two months of 1941. January had twenty-two second alarms, one fourth alarm and one fifth alarm.

The four-alarm fire took place in a paint factory in the Canal section of Brooklyn, N. Y., and was the most disastrous from the standpoint of the loss of life. Five bodies were recovered from the ruins and two died later. The fire was caused presumably by men heating coffee over a vat of paint. When the first company rolled in, the building was fully involved and three additional alarms were immediately transmitted by Acting Deputy Chief P. J. Connolly. Within the first half hour, the building had collapsed.

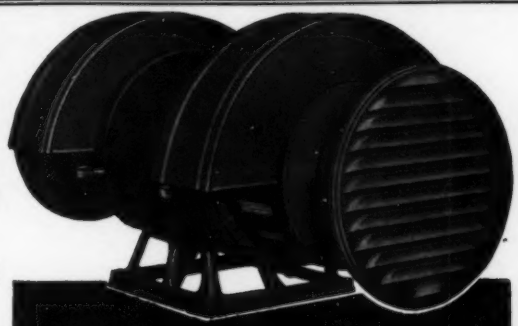
The five-alarm fire involved a group of frame buildings at Rockaway Beach. Although a strong wind was blowing, carrying sparks for blocks, the fire was under control within one hour. Acting Chief Patrick Walsh and Assistant Chief J. J. McCarthy directed the work of twenty-four engine companies, six trucks and numerous auxiliary apparatus. An elderly resident was found dead in the ruins.

Another fatal fire was the two-alarm fire in Chinatown. Frame buildings, owned by corporations not interested in the welfare of their occupants, went up like tinder and two lives were lost. Within two hours the Fire Marshal's office had made an arrest of a straggler who had been put out of the building sometime before where he had been sleeping.

In February there were fourteen sec-

RULES THE AIR WAVES

When You Need It Most!



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GENERAL ALARM SIREN

You Can Depend On It *ALWAYS*

- Does your present alarm predominate all other sounds, at all times?
- Does it penetrate into the sleeping hours of the men in your department at night?
- Does it rise above the din and bustle of day times business hours?
- Does it get the men out?

If it does not meet all of these conditions, quickly and efficiently, then it is your duty to investigate the Sterling Model "M." This sturdy public alarm with its shrill, penetrating and distinctive vibrations meets every need, and at all hours day or night. Guaranteed by its maker and constantly improved, it is considered the most efficient public alarm today. Its performance has never been equalled by any of the novelty sirens on the market today.

The Model "M" siren is of standard horizontal form.

Write today for catalog giving further information and prices.

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DANDUX SALVAGE COVERS

Prevent Excessive Loss from Water Damage

Write or phone nearest office for further information.

Thoroughly impregnated by a triple chemical process, they are light, easy to handle, and to store. Progressive Fire Departments all over the country have standardized on "DANDUX" Salvage Covers, for, unlike ordinary covers, they will not freeze or crack, even at very low temperatures, but remain soft and pliable and will not become greasy or sticky when subjected to extensive heat.

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SMOKE EATERS

ACME protects against all gases and smokes, because it is constructed to absorb all gases including CO. It filters out 100% of all smoke, dust or mist. No other Fireman's Gas Mask protects against all gases along with complete protection against SMOKE SUFFOCATION.

The wide, full-vision windows in the ACME Gas Mask afford firemen full downward vision as well as sideways. Downward vision is essential if your men are to go forward and work effectively.

The clear lenses—free from fogging or steaming—enable him to see at all times. The dead air which causes weariness is definitely eliminated because of the ACME Dead Air Check Valve in the fresh air ducts. Headaches are eliminated because ACME has no pressure points on forehead and temple.

Do the masks that you now have really protect your men against smoke suffocation or fume poisoning? You can easily test them and be certain. Write on official stationery for the ACME SMOKE TESTER which will be mailed free.

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3604 Liberty Avenue
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New Improved ACME
full-vision
ALL PURPOSE GAS MASK

NEWEST ENLARGED EDITION—

QUESTIONS AND ANSWERS FOR LIEUTENANT AND CAPTAIN

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A 310-page book, fully illustrated, by Geo. J. Kuss, former Deputy Chief, New York Fire Department, and Fred Shepperd, Editorial Director of FIRE ENGINEERING.

Contains questions asked at promotional examinations in practically every city in the country where civil service examinations are held, with answers.

Includes chapter on Report Writing, How to Answer Examination Questions, Chemistry Examination Questions, Fire Fighting Questions, Overhauling, Ventilation, Fire Prevention, Inspection, Evolutions, Drills, Use of Apparatus, Rescue Work, and in fact all the topics covered by the fire department promotional examinations.

If you are studying for a promotional examination, you need this book; if you are not, it will nevertheless give you a vast amount of valuable information on up-to-date fire fighting methods.

$2.50 postpaid

Case-Shepperd-Mann Publishing Corp., 24 W. 40th St., New York City

ond alarms, one third alarm and one fourth alarm. The four-alarm fire involved a mattress factory in Brooklyn and gave the men a stiff fight for many hours. The three-alarm fire occured in a skating rink and gymnasium in the Bronx. This fire occurred at a very opportune moment as the Fire Bell Club had just concluded its second anniversary dinner, and the men were treated to a good show.

Another fire that taxed the department was a two-alarm fire in the Borough of Manhattan, New York City. On the arrival of the first alarm companies, firemen tried to gain entrance by way of the fire escape on the front of the building, but smoke and flame drove them back. Deputy Chief Carlin transmitted a second alarm, and Acting Chief Patrick Walsh took command. The fire started at 12:50 a.m. and at 7 a.m. the companies were still pouring thousands of gallons of water in the building at a pressure of 175 psi. Chief Walsh stated that it was one of the toughest fires in years as water did not seem to do any good. It appeared to him as though the more water poured on the fire, the hotter it became.

One of the most spectacular fires was the burning of an old coal pocket in New York City. The building was used as one of the questions for promotion in the last examination for Deputy Chief. Two boats helped the land forces under Assistant Chief J. J. McCarthy, and the fire was knocked down in a very short time.

GORDON R. MULLINS

Alarm Transmission in Salem

In the transmission of alarms in Salem, N. J., the operators of the telephone company play an important role. They relay the calls to Chief O. O. Smith, who, if he believes it necessary, turns in a general alarm. This is done by the operator who relays a message to the Gayner Glass Works where a steam siren is located.

The Salem Department does not relay from truck to truck very often, although at one time water, was pumped over ¾ of a mile from a hydrant to the scene of the fire. So far the department has set a record for a no fire month. There were no fires in January, two silent alarms in February, and one general alarm up to March 10.

Experience with Fires

(*Continued from page* 172)

than water streams would have done.

In conclusion, the following is summarized as essentials in handling unusual types of fires:

1. A working knowledge of buildings, industrial apparatus and products involved.

2. Extinguishing apparatus which, it has been determined in advance, will meet the needs of the occasion.

3. Officers and men with training, decision, and the will to go into the fire and fight it, which is a necessity for fighting any type of blaze and for the operation of any fire department anywhere.

WAR FARE

Alarms and Discussions Clipped and Culled from the War News of the Day, of Interest to the Fire Service.

Roi B. Woolley

Water Worries?

While New York City dads have asked manufacturers to wear out pencils figuring on perambulator fire engines for use in air-raid defense, and Commissioner McElligott and Hizzoner Mayor LaGuardia with aides, are planning and plotting how to meet invading bombers, big worry in official minds is vulnerability of largest city's water supply, where 'tis said, "a single medium sized bomb" would cause havoc.

* * *

Asbestos Gloves Sought

Although we're pretty busy, thank you, raising funds for that Rolling Canteen for Brother Blazebeaters in London, we pause to print appeal from British War Relief Society, 730 Fifth Ave., which says that 10,000 pairs of asbestos gloves are wanted for protection of civilian fire fighters there. These gloves, which cost $2 a pair, will be shipped as rapidly as delivery can be obtained here. What are they wanted for? Man!—have you ever tried to handle an incendiary bomb?

* * *

Are Americans Stupid?

With fire forces already seriously depleted; with firemen being drafted; with too much apparatus and equipment obsolete, and manufacturers unable (in some cases) to promise any sort of prompt deliveries of new materials (even if local authorities do order it); with war and all it means looming nearer daily, we find a majority of civic officialdom ignoring all warnings, blind to precedent, deaf to entreaty of fire officers for preparedness action. Maybe it goes right back to the "Taxpayers" and those who sign themselves "Vox Pop" and "Old Citizen" who want protection but never want to pay for it!—but *somebody's* to blame—and *somebody's* due for a rude awakening. As usual, the Fire Service will get the brickbats!

* * *

Chief Sloat Lands Federal Job

J. Albert Sloat, Chief Engineer, Peekskill (N. Y.) Fire Department reported for duty at Watertown, N. Y., Madison Barracks, where he was inducted into the Federal Service. His salary is reported at $2,100 and his duties to consist of inspecting tents, barracks and equipment and in directing men in event of fire calls—in short, he's a Chief. He has applied to Peekskill Common Council for six-months leave of absence. Meanwhile, First Assistant Chief David Cleveland is in charge in that city.

* * *

He's in the Army Now!

William Jennings Bryan, Volunteer Firemen and National Guardsmen, Salisbury, Md., recently inducted into the army, dashed from the armory automatically the other day when the fire alarm sounded. He was A. W. O. L. two hours fighting the fire. Bryan peeled spuds for a few days as punishment! E. R.

* * *

Thereby Hangs a Tail?

This is about "Gilbert." Gilbert's a horse, stabled and employed at Coven-

GRIPPON HOLDER

—gives you instant speedy action
—yet grips like a vise.
—supersedes old style playpipe cones and slow acting screw plate holders.

THE *GRIPPON HOLDER* is a new, modern, strong, quick-acting holder for clamping any type of nozzle, playpipe, coupling, adapter, hydrant connection, or siamese, having a 2½" opening. It fits any 2½" thread.

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The *GRIPPON HOLDER* grips any appliance so securely that it cannot be jarred loose—yet, due to its unique design, the tool can be removed instantly. There is nothing to screw or unscrew—to mount or release a device merely press down on the handle.

Don't fumble in the tool box for that connection — make it accessible with the GRIPPON HOLDER.

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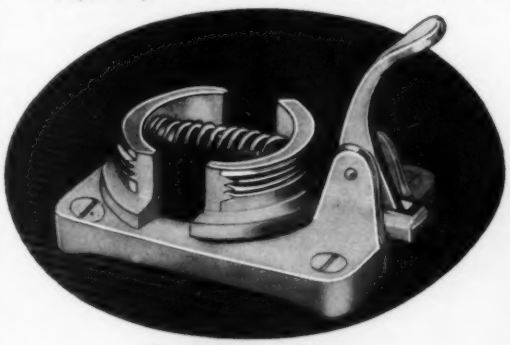

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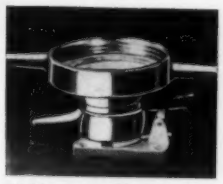

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try. England. The yarn comes via London, from two of our Scouts.

Seems that Gilbert extinguished a bomb blaze all by himself, during a recent heavy raid on Coventry, then saved his smoldering tail. Honest! Gilbert was stabled with seven other horses, when an incendiary crashed through the roof, set fire to his stall, and ignited the straw beneath his feet. Like the smartest veteran air-raid warden, so it is said, Gilbert kicked the bomb through the open door, stamped out the burning straw, and dealt with his burning tail by rubbing it against the side of the wall! Now you tell one!

* * *

"Origin Unknown"

Here are just a few items, from the news of the day, bearing upon the relation of defense, and war production, to the Fire Service:

Troy, Ohio: Waco Aircraft Co. plant, working at capacity production, damaged by fire, reported to have started among oily rags. "No evidence of sabotage." Loss $10,000.

Norfolk, Va.: Norfolk Navy Yard authorities said fire aboard Navy tug "Stallion," which caused damage of $50,000, was believed to have started from an "explosion" in coal bins.

Springfield, Ohio: 300 bomb crates, built for Government, and 1,600 gals. paint were destroyed by fire, in paint department building of Oliver Farm Equipment Co. Loss over $15,000. "Cause not ascertained."

Dover, N. J.: 7,500 lbs. of powder burned in fire in dry house of U. S. Picatinny Arsenal. No explosion; no one hurt. Army officers report "no evidence of sabotage."

DeQuoin, Ill.: Terrific blast killed seven men, leveled liquid oxygen plant of Fidelity Mine of United Electric Coal Co., while men were engaged in unloading freight cars of explosives being moved into plant. No survivors of blast to give details!

Philadelphia, Pa.: Fire following explosion of unknown origin destroyed a magnesium storage shed at Frankford Arsenal. "No suspicion of sabotage."

Pompton Lakes, N. J.: Ten pounds of lead styphenate, chemical used in making of commercial blasting caps, exploded at plant of E. I. du Pont de Nemours & Co., causing damage estimated at $3,000. None injured. "No evidence of sabotage.

Chicago, Ill.: Three men killed, six injured when keg of hydrogen sulphate, used in making mustard plasters, exploded in chemical factory in Chicago. Top floor of 12-story building wrecked. Rumors of sabotage.

Acton, Mass.: One workman killed, another critically injured when heavy explosion occurred in black powder section of American Powder Co. here. Men were working on order of fuses "not intended for Government," but officials are silent as to possible cause of explosion.

Dunkirk, N. Y.: Explosion of oxygen tank in Allegany-Ludlum Steel Co., endangered lives of 100 workmen, caused damage of about $5,000 to plant engaged in defense production. "Cause unknown."

Military Planes: Unprecedented accidents to military and commercial planes has attention of Congress. Second of Air Corp's "flying fortresses" to be lost this winter crashed near Lovelock, Nev., with loss of eight officers and men. This was followed by series of tragic fatalities in and near Panama Canal Zone, in which one bomber burning with loss of

all but one of crew and combat planes were wrecked; and at home, near Livermore, Cal., army plane from Moffatt Field crashing, cremated Lieutenant pilot, fatally injured another. And then the wreck of the Eastern Airliner, with eight dead as result of totally unexplained "accident." Better re-read Fred Shepperd's pertinent editorial of last month!

* * *

Hot Off the Tape

Creation of a civilian branch of Fire Department, similar to fire warden force operating in London, is urged by Fire Commissioner John J. McElligott of N. Y. C. . . . In London, practice of air-raid wardens of blowing whistles to emphasize warning of sirens, upon air raid approach, has been discontinued except to indicate immediate, local danger in daytime. Not to be blown at all at night. . . . A British labor leader, Sir Walter Citrine, visiting A.F.L. convention in New Orleans, disclosed that sound of police sirens gave him jitters, made him want to dash for cover. . . . Six auxilliary firemen of London were sentenced to five years in jail for looting bombed property. . . . Eight explosions on same day severely damaged two factory buildings, causing death of man, serious injuries to three others, in Canada. . . . Evidence of sabotage is being sought in blast that damaged plant of Racon Electric Co., N. Y. C., scaring 35 employees. Firm has defense contract. . . . Dr. McCurdy, president, N. Y. State Hospital Assn. urges "catastrophe units" for hospitals of State "that can go in event of an emergency military or otherwise." . . . N. Y. State American Legion has moved to perfect permanent organization of volunteer observers for a new air warning service of the army. . . . When blast followed by fire razed warehouse at Toppenish, Wash., 7 were killed, 12 injured. Gas or dynamite blamed; origin—? . . . Black powder storage building of duPont Powder plant, Tacoma, Wash., exploded but no one was injured. Origin—? . . . Just before she was to sail with supplies for new U.S. bases in Porto Rico, S. S. Yucatan almost capsized and sank at its dock in East River, N.Y.C.—mysterious cause. . . . Apparatus again came rushing to Navy Dept. building, Washington, D. C., fourth time in less than month—when fire was discovered in trash . . . over 20 dead, 254 missing, 25 seriously hurt when explosion capsized refugee steamer Patria in Haifa (Jerusalem harbor.

* * *

Rep. Martin Dies, appealing for $5,000,000 appropriation to continue work of his Committee of Investigation into un-American acts, says that 10 acts of sabotage had been discovered in connection with recent explosions in plants working on government orders, but declined to identify plants. Members of his Committee reported to have said "sabotage is just commencing."

Chief Potter at Ft. Devens

Chief L. F. Potter of the Westport, Mass., Fire Department has resigned his position as Chief to accept an appointment as Engineer in the Fort Devens Fire Department. Deputy Chief Clifton E. Dwelly, President of the Volunteer Firemen's Association has been appointed Chief Potter's successor.

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with the Model C-6

Federal Traffik-King Siren

This siren combines powerful tone volume, and a long range oscillating light. The light may be operated independently of the siren, which will coast for more than two minutes. The C-6 can be furnished with an electric brake.

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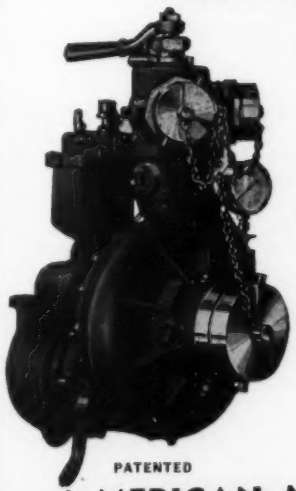

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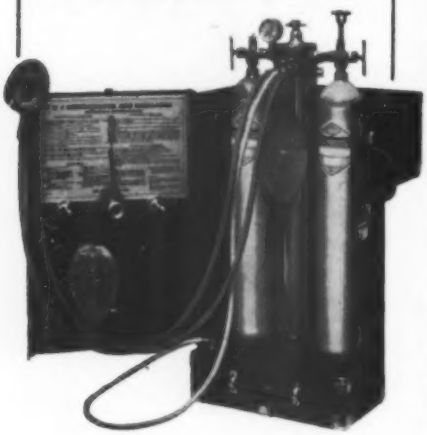

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Iowa Considers New Laws

At the opening of the Iowa legislature, five bills were introduced which affect the members of all fire departments in that state.

Bill No. 127 is the Drivers Liability Bill which, if passed, would compel cities and towns to protect the drivers of fire apparatus against law suits in case of an accident. In the past, it was a well established rule of law that a municipality was not liable for injuries or damage to persons or property by the municipal fire department.

Bill No. 141 would compel cities having civil service to select the Fire Chief from within the department, and require ten years service to be eligible to that position.

Bill No. 175, would make it compulsory for all cities having a population of 10,000 or over, to have a paid department. At the present time a town or city may have a paid department.

Bill No. 199, requires an increase in Fire Department maintenance from 3.5 to four mills.

Bill No. 200, would change various sections in the new retirement system by reducing the ten-year clause on ordinary disability to five years, it would guarantee one-half of pay upon retirement and would change the age of dependents of deceased pensioned firemen, from sixteen to eighteen years of age. The latter change was suggested to permit keeping such dependents in school long enough to graduate from high school.

Time Sheet for Emergency Runs

Chief Frank Murray of the Teaneck, N. J., Fire Department has put in use a form that should be of help to any department that does emergency service or that operates a rescue squad.

A small time clock is carried on the driver's seat. When an alarm is received, the driver stamps the time sheet as he starts out, there being other spaces for the time of arrival, the ambulance arrival, the police arrival and other information. This sheet is expected to simplify matters considerably where there is a case of law and nobody knows what time the ambulance arrived, whether a doctor was present or other information that would be important.

GORDON R. MULLINS

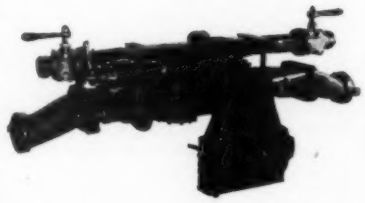
Women Enter New Field

Women have taken to false alarm ringing.

Heretofore this mad and idiotic practice of bringing firemen out on bogus alarms was monopolized by young boys and grown men. During the 1940 Christmas season, while holiday shoppers thronged the main streets at Bridgeport, Conn., a half dozen calls for fire were received at alarm headquarters from a woman. The calls came over the telephone at about the same hour—between 5:15 and 6 p. m., and each location was in the business center of that city.

At Milford, Conn., an epidemic of false alarms in the Walnut Beach and Devon areas kept the Milford Fire Department busy chasing false calls for a long time. On March 13 police apprehended Mrs. Floyd Fleming, twenty-five, and charged her with sounding several false alarms, both by telephone and by ringing fire boxes. THOMAS F. MAGNER.

WATEROUS FIRE PUMPS



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Minneapolis New Orleans Kansas City, Kan.

The English Attitude

The following is reprinted from the editorial page of the Daily Mirror, London, England, and shows the cooperative effort of citizens of that city in fighting incendiary fires:

"My old man's a fireman." So ran a popular music hall song.

Let us now sing, "I'm a fireman, my old woman's a fireman, our Bill's a fireman, our Gert's a fireman."

The new A.R.P. organization of fire-watching parties is beginning to take effect.

All of us who have put out incendiaries have a great contempt for them. There's no game more exciting. It's splendid exercise, and thrilling beyond words to see these murderous weapons "dying" as a result of our energy.

Soon we shall be competing with one another to be first on the spot, to hold the record number put out in our street. More sand, more stirrup-pumps are wanted.

Take your fire-watching seriously! Your life and property depend on it. Remember that every incendiary you put out is a personal blow against Hitler, the demon from hell who is trying to burn up your home.

Fire Sweeps Ammunition Station

Fire swept through the ammunition supply station of the 369th headquarters building at Fort Ontario, Oswego, N. Y., threatening for a time the $500,000 cantonment housing about 1,400 Negro soldiers.

The fire was believed to have been caused by an accumulation of coal gas in the boiler furnace causing it to explode.

The supply wing was almost completely enveloped shortly after the explosion. An east wind saved the sixty-five new barracks and officer's headquarters from destruction by blowing the fire and heat away from them. Rifle bullets, exploded by the heat of the fire, banged away for a considerable time yet no one was injured. All available apparatus from Oswego was called out, as well as the post's new pumper.

J. R. Jackson

Six Stations at Fort Devens

A recent check of the activities of the fire department at Fort Devens, Mass., revealed that eleven alarms were sounded during the months of January and February. A majority of alarms were for brush fires or back-fires in boilers in buildings in the construction area.

The department which was organized and trained under the leadership of Chief Dewey Downing has six stations equipped and manned. The personnel of the department consists of Chief Downing, two district Chiefs, and a number of civilian firemen and selective service soldiers, bringing the total force up to sixty men. A list of fire prevention measures is posted in all of the barracks in the fort.

Volunteers to Assist Regulars

On the recommendation of Chief E. P. Welch of the Columbus, Ohio, Fire Department, plans are being formulated for a volunteer fire fighting organization. This group will assist the regular firemen.

$250.00 FREE for a NAME

PRIZES

1st $100.00
2nd $50.00
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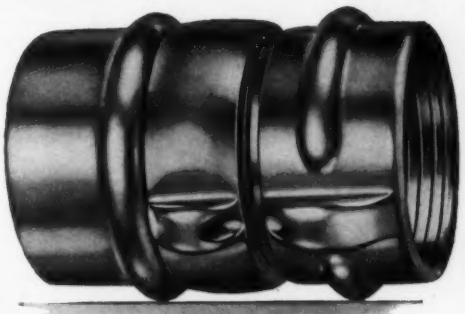
10 More - $5.00



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FOLLOW THESE EASY RULES . . . . .

1. Submit one, or as many names as you like, in describing this protected thread and swivel coupling. Trick names desirable.
2. Draw an outline of coupling and write not more than 50 words describing advantages of this coupling.
3. Print your name, address and Fire Department or fire fighting connection. Send in your suggestions on a sheet of paper, written on one side only.
4. Contest closes June 30, 1941. Only entries postmarked on or before that date will be accepted.
5. Judges will be guided by general suitability of words for advertising and identification purposes. Judges' decision will be final. Entries, contents and ideas therein become the property of Akron Brass. In case of ties, duplicate prizes will be awarded.
6. Any resident of the United States, over 18 years of age, may compete if he is actively engaged in fire fighting and is identified with a municipal fire department, volunteer fire department or other fire fighting organization. Employees of Akron Brass, its advertising counsel, or any individuals engaged in the manufacture, sale or distribution of fire fighting equipment, or their families, are not eligible to compete. Contest subject to all Federal and State Regulations.
7. Prize winners will be notified individually by wire, and formal announcement will be made.
8. Judges for the contest are:
   Jay W. Stevens, Exec. Secy. Intl. Assn. of Fire Chiefs, San Francisco, Calif.
   Selden R. Allen, Chief of Fire Dept., Brookline, Mass.
   George J. Richardson, Secy. Intl. Assn. of Fire Fighters, Washington, D. C.
   D. W. Brosnan, Chief of Fire Dept., Albany, Georgia.

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Capacity: 0 to 250 G.P.M.
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MIDWESTERN FIREMAN'S COAT
With Detachable Lining

This coat, our No. 331, furnished in different materials, has as a special feature a detachable lining, of pure wool. This feature makes it adaptable to all conditions of weather and assures you of the warm, dry protection that only MIDWESTERN can offer, for only $13.60.

Write for Catalog
All Midwestern garments are Union Made, A. F. L.

MIDWESTERN MFG. CO.
MACKINAW, ILLINOIS

Fighting Blitz-Fires in London

(*Continued from page* 175)

quench that torturing thirst was water from the Thames. Yet, never did I hear a murmur of reproach or complaint.

The only mention made of the subject was a quiet observation from their officer that the men had been at work for nearly five hours and that he was wondering if it would be possible to have refreshments sent to them.

Drinks Needed for the Men

Returning to the command-post, I sent a dispatch rider to fire brigade headquarters to ask for the much-needed beverages. Officers and men from my own town had each an iron-ration, but experience has taught me the energizing value of a cup of hot liquid, coffee, tea, or soup where a hard-toiling fireman is concerned.

This experience had been gained at large fires in peacetime; but officers and men that night and morning were facing, and accepting, conditions one hundred times worse than those at any peacetime blaze.

The dispatch rider returned with a message that all service mains had been broken, or fractured, and that there was neither heat nor water available at the station. However, a mobile-canteen could be expected to make its appearance shortly.

I now became aware that my tongue seemed like an enlarged rasp, and that my throat was comparable to the surface of sandpaper. The salivary glands refused to act on a morsel of chocolate.

It was then that my driver recalled that she had an orange in the car. It was divided among the four of us, and, as I made the most of my portion of the fruit, my mind flashed back to the New Testament story of the feeding of the five thousand with five small loaves and two fishes. Especially, as the portion, small as it was, proved most satisfying.

At 02:30 our grip on the fire was strengthening materially. The Boche was still active, and keeping well to time schedule. His "sticks" however, were not so frequent in our immediate vicinity as they had been during the previous evening and night. All the same, he gave us a few occasionally. They had, however, no effect whatever where retardation of our work was concerned.

Relaying Water

A short distance from our "ground" a good deal of property was well alight. This led me to requisition water-units to relay from the Thames to a point from which the water could be taken to my own fires and to those of my neighbors. The only water-unit available was dispatched to me and no time was lost in relaying water to the common "dump."

During the major part of the night of September 6 and 7, I had been engaged in my own town in dealing with outbreaks which had been followed during daylight hours on September 7 by three more outbreaks of fire, all of which I had attended. I was now beginning to feel tired.

The last fragment of lassitude, however, vanished when pieces of granite

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the
WHEAT SPOT-LIGHT

The strain of National Defense production puts a greater strain upon the Fire Departments that must protect industry. Equipment built for endurance as well as efficient service is the by-word of today's purchases in the fire service equipment field.

The Wheat Spotlight with its 25,000 candlepower light and its 1000-hour endurance battery is therefore a MUST for your Department. Its light weight and convenient shoulder strap allows the operator to have both hands free for other firemanic duties. It has either Spot or Flood reflectors and is invaluable to all departments large or small.

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1. Dry Cleaning and Pressing
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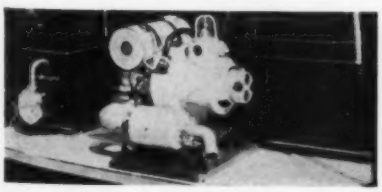
Easy to work in. A Homelite 1800 watt Portable Generator gives you all the brilliant floodlight your men need on night fires. For a small investment it increases greatly your safety and efficiency factors. It insures quicker work and fewer accidents. Moreover it equips your department with a convenient standby power supply for signals.



Easy to work with. Weighing only 83 pounds complete with its built-in gasoline engine, a Homelite is easy to use on a fire—easy to carry—easy to set up *any place* for immediate action. Moreover it's completely automatic—needs no manual attention while running.

Send for bulletin

Make sure you have our complete Fire Department bulletin. Write for free copy now.

HOMELITE CORPORATION

804 Riverdale Ave., Port Chester, N. Y.

and rubble fell around us like grape shot. A d-a bomb had burst, and had bespattered all round with debris. Unfortunately it was not the one, on the corner of a building, which was preventing one my crews from working at what was otherwise a most excellent vantage point.

With the water-unit at work, I returned to the command-post to detect the odor of volatilizing petrol. A two-gallon tin had been punctured by a missile and was leaking badly. This made me concerned for the safety of my petrol "dump" which, if ignited, would practically ring about twenty pumps and their crews with flames. The hazard was immediately removed by the petrol being issued to all pumps still in action, and the empty cans placed where they were least likely to do damage.

Turntable Ladders

Three of my pumps had definitely broken down. A mechanic would have been a valuable acquisition, as it was impossible to obtain the service of any of the mobile workshops, for which there was a considerable demand.

And what a vast advantage would a turntable-ladder (aerial ladder) have. It would have materially shortened the struggle.

These are most useful appliances in urban areas, and I am glad to know that the Home Office is continuing to supply as fast as possible, Merryweather 100-ft. steel turntable ladders to cities and towns most in need of them.

The best we could do to get downward streams into the heart of the fire was to get branches working from the roof of a near-by warehouse, which, somehow, had escaped ignition.

Reports from various parts of the fireground were that all was proceeding well, and according to plan.

More water-units were arriving at the command-post, and, generally speaking, there was little to worry about, except of course, the sticks of bombs from the Boche overhead.

The cherry-hue of the flames now became lighter as though the roof was about to collapse, or a wall to go. The progression towards white-glare proceeded alarmingly and I at once knew that something unusual was happening, especially when tongues of fire began to leap hundreds of feet into the air.

I was leaving the command-post to make personal inspection when the officer in charge of the south side of the building ran in, almost breathless, to report that some of the pumps were picking up oil and passing it to the flames!

Hurrying to the stream, I found that its level had fallen considerably and that, on the surface, there was a two to three-inch layer of oil! A fireman now arrived to tell me that the oil effluent was due to a bomb having wrecked an oil tank just previously. This meant an end to this source of supply.

Commendable Initiative

Fortunately, the water-units were available, and, also, the bomb, in wrecking the tank, had failed to start another fire.

Orders to shut down pumps were given. The flames from the building, still towering to an enormous height, were accompanied by dense black clouds, which, at an altitude of 80 to 100 feet

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FOR FIRE DEPARTMENT SERVICE

Designed for instant action when burn-hazards strike at the fireman, this new and different spray kit enables correct treatment of burn injuries at the scene of the emergency. No time is wasted in preparation—there are no ingredients to mix or solutions to make—the operator simply connects the high-pressure gun to a jar of Foille for Burns and sprays the injured area. Due to Foille's unique efficiency, pain is quickly relieved, infection is checked and healing hastened. Ample supplies of Foille, compresses, bandages and pads are included—even a sterilized muslin sheet. Full details in Bulletin No. FA-73—write!

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District Representatives in Principal Cities

burst with a noise equalling that of the enemy bombs.

In less than ten minutes, the pumps were at work again. Before this, however, a member of the town's established fire brigade had displayed commendable initiative by putting some pumps to draft water lying in bomb craters.

British Still Retain Humor

It was now our task to regain lost ground and to continue to prevent the fire spreading to the oil depot.

Serious as the situation might be, we were still sufficiently British to enjoy a quiet laugh at our own expense.

Water was passing from the water-units to the pumps when I noticed a burst in one of the lines of hose. I turned to tell a man to get a hose bandage, when I saw everyone around me taking cover. I followed suit.

We waited for the explosion. Seconds fled. An auxiliary near me exclaimed, "I wish the ruddy thing would drop." I asked him to what he was referring and he replied by asking me if I could not hear the shrill whistle of a falling bomb.

The only sounds evident to me were those of the pumps at work and that of the escaping water from the hose. It was this latter noise which was causing all the alarm. Everyone now laughed at himself and plunged into the contest again.

The first fingers of dawn were now in the eastern sky. It semed to me that I had been days on the job. The Boche appeared to have come to stay, too, because he let loose a stick of bombs just about this time and started fires 200 yards to the rear of my command-post.

Ringed by Fires

At no time during our stay in dockland had the air been what one could truthfully describe as fresh. Instead, one inhaled an atmosphere charged with smoke, fumes, heat and dust at every breath.

Now when these latest fires, to our rear, got going, our eyes and lungs received heavy punishment. I saw strong, smoke-inured firemen coughing, retching and finally vomiting the meagre contents of their stomachs.

Lack of stream, or spray, from branches, combined with aridity of mouth and throat, made attack by these highly concentrated, dry, fumes, on the human system comparatively easy.

We were now ringed by fires. In alternate tours of our own ground my deputy and I were able to withdraw a number of pumps, practically no longer needed, and to dispatch them, under a patrol-officer, to the officer-in-charge of the fire at the rear of us.

At this juncture, officers and men working under my direction were cheered by the news that a mobile-canteen making for our parts, had been sighted. Hopes ran high, and they were soon fulfilled by the arrival of the van with copious draughts of good tea and meat extract.

Following an absence of about thirty minutes, my deputy returned to the command-post bringing with him a messenger carrying what he identified to me as a "mug of hot tea."

The exterior of the mug was plentifully adorned with tarry finger-prints that would have delighted the heart of

MANHATTAN FIRE HOSE

★ Carefully Inspected at Every Stage of Manufacture

★ Every Length Tested Under Pressure

★ Flat-Folding . . . . Easy-to-Handle

Made by the makers of Manhattan Radio - Active Treated Fire Hose — the mildew - proof, rot - proof, freeze - proof fire hose.

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GUARD LUG couplings are the invention of our own personnel. There are *NO* royalties figured in their cost to you. *Insist* on obtaining the savings on your "per foot" hose costs that should be yours for National Defense when you specify GUARD LUG couplings.

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WOOSTER OHIO
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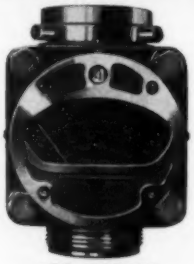

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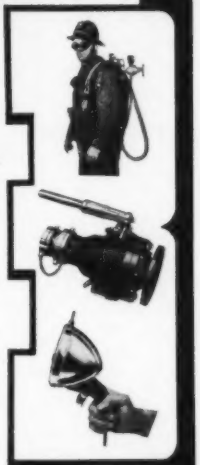

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any C. I. D. man; the contents were a turgid, cold, liquid surmounted by what appeared, to the taste, to be creosote.

Nevertheless, I drank the mixture, whatever its ingredients were, and enjoyed it!

The major fire on our "ground" was beginning to die down; the severely burned warehouses had been well flooded and no flames were coming from them: dense clouds of smoke were still rolling off the tar distillery.

Daylight a Blessing

Daylight proved a boon. We now could see where we were, so to speak, and what had been the result of our work. Visually, there was evidence that in a few more hours there should be nothing more to be done, except, perhaps, to damp down here and there. And, especially if the sudden surcease of Boche planes were to continue.

With their disappearance, anti-aircraft gunfire had ceased, and, at 05:15 one could honestly feel that it was good to be alive. Then came the All Clear.

Although many of the officers and men who had labored unceasingly in the face of great heat punishment and physical danger were due to be relieved, none asked to be withdrawn from the fight. Several were obviously suffering acutely from the effects of the fumes.

Tactfully, without hurting their feelings, I told them they were required to man a number of pumps that were to be made up and dispatched elsewhere. In this way, they passed to their well-earned spell of relief.

Truthfully, I cannot find words sufficient to express the sterling worth of the regulars and auxiliaries under my command at that great dockland fire. I knew the reputation of the Fire Service for grit and resolution, but these officers and men did what many would have deemed to be the impossible.

Courageous Hosemen

I daresay that a similar claim can be made for other officers and men on that enormous fire-ground. Naturally, I could not be everywhere. All I can do is to speak of what occurred in my own vicinity.

When bombs crashed, the nozzle men stuck grimly at their posts, never flinching, never "ducking" as we others "ducked." They stood like statutes, bent on one thing only—and that was getting the utmost amount of value out of the nozzles under their control. The discipline was superb.

At one phase, a bomb dropped within a few feet of an officer and a crew at work from the roof of a warehouse. It failed to explode. The officer in notifying me of this fact, said he and his men were staying where they were, pending orders to the contrary from me!

This was the sort of discipline that pervaded the whole of these regulars and auxiliaries, every one of whom had probably never seen, or heard of, me before that Saturday night.

Their commanding-officer should be proud of them, as doubtless he was long before I had the honor of meeting them.

At 07:00, reliefs for those who had been working at the fire throughout the evening and the night began to arrive. But, in many instances, it was with difficulty that these hard-pressed blitz-fighters could be prevailed upon to

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The SUPERIOR LIFE SAVING NET is stronger than any other, because of the tested breaking strength of 1,800 lbs. of each individual rope.

The direct pull shock absorber system eliminates all friction and its greater resiliency provides for a safer, easier landing.

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knock off and take their well-earned spell of rest.

The fires were all under command, most of the buildings were full of steam, but these heroes wanted to remain until the final "bulls-eyes" had been doused.

I was now notified that a principal officer was being sent to relieve me so that I might return to my duties in my own town "above bridge."

As my party was entering the staff car I took a final look around. During the night I had formed the impression that daybreak would reveal nothing but fire-swept debris of factories, warehouses and oil installations. Actually, it disclosed that the damage by fire, in my immediate vicinity was really small compared with the number of buildings that had been untouched by flame and heat.

Lessons from the Night

The night was full of lessons for a fire engineer.

I discovered that having one of my own officers as my deputy was of considerable worth to me. He knew exactly the principles I apply on the fire-ground. His presence enabled me to remain au courant with the many, varying, phases of the struggle; and, if I passed an order to him I did not need to tell him how it could be executed.

He was as well versed in the technique of the London Fire Region as I was; and this was an occasion where technique was more than a hand-maid to practical knowledge.

I cannot speak too highly of the inestimable value of the technique introduced into the London Fire Region by the regional fire-officer, Commander Firebrace, who, I am glad to know, has been since created a Commander of the Order of the British Empire.

The written instructions, the actual practices in all parts of the region have made the fire fighters within that region second to none the world over.

If ever I am again called upon to assume similar duties outside my own town, I shall certainly take with me one of the brigade fitters and a kit of tools.

There were innumerable jobs that such a skilled mechanic could have done speedily that night and morning, and I should have been able to keep practically all of the pumps in running order throughout.

Another lesson I have translated into effect by having placed in each of our towing-vehicles, a sufficiency of pure water for the crew.

Training Conference Planned

On May 4, the Zone Fire School Instructors of the State of Pennsylvania will assemble for a conference at Harrisburg. Important matters are to be discussed and plans for the Third Annual Firemen's Training Conference, to be held in August at the Pennsylvania State College, will be formulated. Future policies and the question of defense activities are to be debated.

Starting in September, the Fire School of the Public Service Institute, Commonwealth of Pennsylvania, will offer, in addition to the present fundamental course, a curriculum of advanced fire fighting techniques. The fundamental course covers a training period of fifteen weekly sessions whereas the advance course will require ten weeks.

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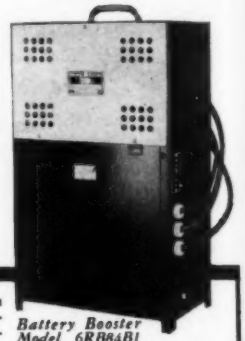

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Convention Dates

April 16-19—ARIZONA STATE FIREMEN'S ASSOCIATION. Annual Convention, Tucson, Ariz. Secretary, H. W. Reggin, Box 813, Prescott, Ariz.

May (tentative)—NEVADA STATE FIREMEN'S ASSOCIATION. Annual Convention, Lovelock, Nev. Secretary, E. R. Simms, Sparks, Nev.

May 12-13—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Grand Island, Nebr. Secretary, Ray Tiller, Waterloo, Ia.

May (tentative)—NORTHWEST FIRE SCHOOL. To be held at the University of Minnesota, Minneapolis, Minn. Committee Chairman, W. L. Bundy, Alexandria, Minn.

May 5-6—KANSAS STATE FIREMEN'S ASSOCIATION. Annual Meeting, McPherson, Kans. Secretary, K. D. Doyle, Wawego, Kans.

May 7-9—GEORGIA STATE FIRE COLLEGE. Annual Meeting, Atlanta, Ga. Director of College, Harry Phillips, 116 Ala. Street, Atlanta, Ga.

May 14-16—NORTH CAROLINA FIRE COLLEGE AND DRILL SCHOOL. Annual Meeting, Charlotte, N. C. Secretary, J. C. Fitzgerald, Asheville, N. C.

May 19-21—NEW YORK STATE FIRE CHIEFS' ASSOCIATION. Annual Meeting, Utica, N. Y. Secretary, Chris W. Noll, Poughkeepsie, N. Y.

May 20-23—IOWA FIRE SCHOOL. 17th Annual Fire School, Iowa State College, Ames, Ia. Director, L. J. Murphy, Ames, Ia.

May 21—IOWA FIRE CHIEFS' ASSOCIATION. Annual Convention, Ames, Ia. Secretary, L. R. Morris, Ames, Ia.

May 26-28—NEW MEXICO STATE FIREMEN'S ASSOCIATION and NEW MEXICO STATE FIRE SCHOOL. 19th Annual Convention and 12th Annual Fire School, Hot Springs, N. M. Secretary, T. A. Rosenwald, Albuquerque, N. M.

June (tentative)—FLORIDA STATE FIREMEN'S ASSOCIATION. Annual Convention, Jacksonville, Fla. Secretary, F. C. Pfaender, Chattahoochee, Fla.

June—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. Annual Meeting, Conway, S. C. Secretary, Paul E. Wilburn, Union, S. C.

June 2-4—OKLAHOMA STATE FIREMEN'S ASSOCIATION. Annual Convention, Ponca City, Okla. Secretary, Charles Slemn, 1701 Northeast 63rd Street, Oklahoma City, Okla.

June 2-6—SOUTH DAKOTA FIREMEN'S ASSOCIATION AND FIRE SCHOOL. Annual Meeting, Sioux Falls, S. D. Secretary, M. C. Sullivan, Parkston, S. D.

June 4-5—NORTH DAKOTA FIREMEN'S ASSOCIATION. Annual Convention, Williston, N. D. Secretary, H. R. Handtmann, Fargo, N. D.

June 9-11—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. Annual Meeting, Alexandria, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

June 10-13—ILLINOIS FIRE COLLEGE. 17th Annual Fire College, Illinois, Firemen's Association, University of Illinois, Champaign-Urbana, Ill. Secretary, R. W. Alsip, Champaign, Ill.

June 12-13—INDIANA INDUSTRIAL AND VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Bremen, Ind. Secretary, W. H. Collisson, Winona Lake, Ind.

June 12-14—EASTERN ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Lancaster, Pa. Secretary, Charles E. Clark, Box 217, Wayne, Pa.

*June 15-18—SOUTHEASTERN ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Hotel Roosevelt, Jacksonville, Fla. Secretary, W. W. Stephen, Box 904 Anniston, Ala.

June 18—THE NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. Annual Meeting, Crestline, Ohio. Secretary, J. W. Gardner, Ashland, Ohio.

June 19-21—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual Meeting, Poughkeepsie, N. Y. Secretary, Chris W. Noll, Poughkeepsie, N. Y.

June 21—LEBANON COUNTY FIREMEN'S ASSOCIATION. 19th Annual Convention, Annville, Pa. Secretary, Chief Fire Marshall, A. S. Snuffer, Palmyra, Pa.

*June 23-26—MICHIGAN STATE FIREMEN'S ASSOCIATION. Annual Convention, Bay City, Mich. Secretary, L. M. Kinney, Box A, Kalamazoo, Mich.

June 24-26—OHIO FIRE CHIEFS' ASSOCIATION. Annual Convention, Lancaster, Ohio. Secretary, E. J. Green, Steubenville, Ohio.

June 25—CENTRAL WESTERN (OHIO) FIREMEN'S ASSOCIATION. 11th Annual Convention, Ft. Loramie, Ohio. Secretary, Roger C. O'Donnell, Covington, Ohio.

July 8—STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Quarterly meeting, Rockland. Secretary, Charles W. Bowker, S. Paris, Me.

July 16-17—ONONDAGA COUNTY VOLUNTEER FIREMEN. Annual Convention, Minoa, N. Y. Assistant Secretary, J. C. Shedd, Minoa, N. Y.

July 16-18—MARITIME FIRE CHIEFS ASSOCIATION. Annual Convention, Edmundston, N. B. Secretary, Charles A. Cunningham, St. John, N. B.

*July 20-25—TEXAS FIREMEN'S TRAINING SCHOOL. Annual Meeting, A. and M. College of Texas, College Station, Tex. Director of Firemen's Training, H. R. Brayton, A. and M. College of Texas, College Station, Tex.

July 21-25—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 11th Annual State Fire School, West Virginia University, Morgantown, W. Va. Director, G. R. Spindler, 121 Mechanical Hall, Morgantown, W. Va.

July 21-23—WISCONSIN STATE FIRE CHIEFS' ASSOCIATION. Annual-Convention, Wausau, Wis. Secretary, A. V. Simon, Ladysmith, Wis.

August—UTAH STATE FIREMEN'S ASSOCIATION. Annual Convention, Murray, Utah. Secretary, J. J. Creedon, Bingham Canyon, Utah.

Aug. 4-5—NEW YORK STATE FIRE FIGHTERS' ASSOCIATION. Annual Convention, Syracuse, N. Y. Secretary, Frank A. Emden, 1403 Mather, Ave., Utica, N. Y.

Aug. 4-6, 1941—INDIANA FIREMEN'S ASSOCIATION, 25th Annual Convention, Kokomo, Ind. Secretary, Burley Marshall, P. O. Box 725, Terre Haute, Ind.

Aug. 12-15—VIRGINIA STATE FIREMEN'S ASSOCIATION. Annual Convention, Staunton, Va. Secretary, R. B. Barker, Newport News, Va.

Aug. 16-17—VERMONT STATE FIREMEN'S ASSOCIATION. Annual Meeting, place not fixed. Secretary, W. H. Adams, Vergennes, Vt.

Aug. 17-20—NEW YORK STATE PERMANENT FIREMEN'S ASSOCIATION. Annual Convention, Auburn, N. Y. Secretary, Arthur Bleau, Wesleyan Street, Amsterdam, N. Y.

Aug. 19-22 — FIREMEN'S ASSOCIATION STATE OF NEW YORK. Annual Convention, Geneva, N. Y. Secretary, Fred A. Davis, Port Edward, N. Y.

*Aug. 19-21—KENTUCKY FIREMEN'S ASSOCIATION. 22nd Annual Convnetion, Covington, Ky. Secretary, V. A. Beam, 2221 W. Broadway, Louisville, Ky.

Aug. 19-22—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 69th Annual Convention, Hotel Statler, Boston, Mass. Secretary, D. B. Tierney, Arlington, Mass.

*Aug. 25-29 — PENNSYLVANIA FIREMEN'S TRAINING CONFERENCE. 3rd Annual Conference, Pennsylvania State College, State College, Pa. Secretary, Charles E. Clark, Box 217, Wayne, Pa.

*Aug. 26-29—DOMINION ASSOCIATION OF FIRE CHIEFS. Annual Convention. Peterborough, Ont. Secretary, Chief James Armstrong, Box 56, Kinston, Ont.

Sept. — NEW HAMPSHIRE STATE FIREMEN'S ASSOCIATION. Annual Meeting, place not fixed. Secretary, A. G. Robinson, Manchester, N. H.

Sept. 9—STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Annual Meeting, Norway. Secretary, Charles W. Bowker, S. Paris, Me.

Sept. 10-11—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Middletown, Del. Secretary, W. W. Pettyjohn, Dover, Del.

Sept. 12-13—NEW JERSEY STATE FIRE-

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- We offer you an especially good line of brooms for fighting brush fires.
- We also offer you one of the most complete lines of fire equipment ever carried by any distributor in the field, from spanners to automatic fire alarms.
- Send us your next order and we will show you how to save time and money.
- Tell us your needs and forget your worries.
- Write for our latest catalog today if you do not already have one.

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WHERE
PRESSURE
COUNTS

Flames roaring from the upper floors and the battle is on. PRESSURE is the one vital factor that you depend on in fighting such fires. If the mains in your city are clogged with incrustation you are *not* getting full pressure. RECOMMEND A NATIONAL CHECK-UP of the water distribution system in your city —everybody will benefit.

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CLEANING COMPANY
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NOD and SHAKE
SMOKE MASK

Carry It in Pocket. Slip on in a Jiffy. Positive Protection to Eyes Against Smoke and Saves the Lungs.

WHY GET SICK?

Price $48 per Dozen

Upon receipt of $4.00 one will be forwarded as a sample postpaid.

H. S. COVER
Station A, South Bend, Ind.

MEN'S ASSOCIATION. Annual Meeting, Atlantic City, N. J. Secretary, Evan F. Benners, R. 602, 24 Branford Place, Newark, N. J.

Sept. 22-25—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 19th Annual Convention, Huntington Hotel, Pasadena, Cal. Secretary, H. E. Strasser, 3046 Oregon Ave., Long Beach, Cal.

Sept. 29-Oct. 2—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. 46th Annual Meeting, Hotel Jefferson, St. Louis, Mo. Secretary, Irving Shulsinger, New York City.

Oct., 1941—ARKANSAS STATE FIREMEN'S ASSOCIATION. Annual Meeting, Magnolia, Ark. Secretary-Treasurer, H. D. Compton, Central Fire Station, Little Rock, Ark.

Oct. 2, 1941—WALWORTH COUNTY FIRE OFFICER'S ASSOCIATION. 11th Annual Meeting. Secretary-Treasurer, C. A. Foster, Lake Geneva, Wis.

Oct. 7-9, 1941—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. Annual Convention, Greensburg, Pa. Secretary Charles E. Clark, Box 217, Wayne, Pa.

Oct. 14-16, 1941—ILLINOIS FIREMEN'S ASSOCIATION, Inc. Annual Convention, Bloomington, Ill. Secretary, Roy W. Alsip, Champaign, Ill.

Oct. 21-23, 1941—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Norfolk, Neb. Secretary-Treasurer, Louis A. Novak, Box 788, Norfolk, Neb.

*The notices marked with an asterisk are either appearing for the first time or have been changed since the preceding issue.

Correspondence

Influence of War Work

To the Editor:

At present we are anything but busy in the fire line. I can tell you that it will soon be two years since I have had a live hose line on a fire. True, we are on the job, have many small alarms, and many close calls, but our fire loss is low. The department however is kept on its toes, with regular drills, and the boys are always ready to "go."

Naturally all the energies in this village, as well as the rest of this country, are being turned to the war effort, and as a result, some of the smaller towns such as ours have been pretty quiet. This town of 1,500 persons has about 100 men in the Canadian Army, four of them are members of this department, two of them overseas with the First Canadian Division.

The boys of this department have taken it upon themselves to send each month, a parcel of smokes and a letter to these two members overseas, and that is one service which the soldiers appreciate. We have had some very interesting letters from those boys. Also I might say, that the same fraternal feeling which marks the fire service throughout America, extends to the old land, as when these boys went away, they carried credentials as members of the department. When visiting parts of the old land, they used them, and the Firemen in England showed the same brotherly feelings evident in every city on this continent. That goes to show that all firemen have the same common brotherhood, no matter where they reside.

Now I have a subject that I might possibly write later—"Chimney Fires." I have so many different duties to perform, that sometimes I cannot find time to get all the things done. I have again been appointed Assistant Secretary of the Dominion Association of Fire Chiefs and that takes some extra work, as Chief Armstrong wants me to get all the "wrinkles" of his office down as well as I can. This is the third year that I have been appointed to the office of Assistant Secretary.

Thanks very much for thinking of me.

Yours truly,
ALLAN H. CLARK,
Chief of Fire Department,
Lakefield, Ont.

* * *

An Invitation to Firemen Visitors

To the Editor:

We have had city officials, police officers, firemen and Chiefs coming in increasing numbers to our city and entering our hospitals.

Now a great many of them come here alone and are alone through operations and convalescence. Anyone who has been confined in bed for a few weeks, alone, can appreciate what it means to have someone dropping in for a visit, bringing some reading material, smokes, change of clothing and the like.

This is all done by the hospitals, but the boys in our department and myself would like to have the various departments drop us a line when some fireman arrives here so that we will not miss him. We try to contact them all, but some get by, so please give us a little help along this line. It certainly makes a difference to the patient to have someone who talks his language drop in and see him.

Our visitors come from all over the states, Washington, D. C., Saskatchewan, Ontario, Fort Williams, Alberta, Alaska, New Zealand, and British Columbia, and we are adding more to the list all the time.

When someone is sent here, let us know so that we can do our bit to make their visit pleasant. We get our reward from the fine fellowship, meeting wonderful men, and exchanging ideas. It pays us great dividends.

C. E. GINTHER,
Chief, Rochester, Minn., Fire Dept.

One for Our Readers

H. A. Musham, a fire fan of Chicago, Ill., has informed us of the great interest that exists throughout the department as to the origin of the 4-11 fire alarm call for extra apparatus. Particular interest centers around the 11 part of the number. He has traced its use in Chicago back to 1874-75. Any information as to where and when it was first used and the reason for adopting the "11" part of the number will be appreciated.

Department and Other Reports Received

Austin, Tex.—Annual report of the Austin Fire Department for the year 1940; forty-seven pages.

Charlotte, N. C.—Annual report of the Charlotte Fire Department for the year ending December 31, 1940; fifty-six pages.

Springfield, Ohio—Annual report of the Springfield Fire Department for the year ending December 31, 1940; twenty-two pages.

Stillwater, Okla.—Annual report of the Stillwater Fire Department for the year 1940; fourteen pages.

GET THERE SAFELY!

FIRE! No time to lose. Traffic MUST be cleared—be it night or day. The best and surest way is with Buckeye Roto-Rays or Moto-Ray and the powerful Buckeye Exhaust Whistles.

Roto-Rays, the aristocrat of all warning signals, have this powerful revolving red light, compel instant attention and are recognizable for more than half a mile.

The new, improved Moto-Ray offers everything that any oscillating beam can offer, and is extremely effective. Buckeye Exhaust Whistles produce a shrill and penetrating blast that is easily heard for a mile even above the heaviest roar of traffic. These warning signals quickly clear the streets. *Write today for catalog on all Buckeye Fire Fighting Equipment.* BUCKEYE IRON & BRASS WORKS, DAYTON, OHIO.

BUCKEYE ROTO-RAYS WHISTLES

Fig. 937 Heavy Duty Exhaust Whistle

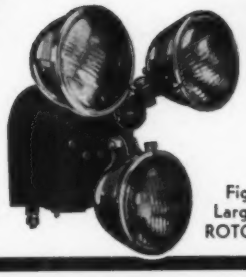


Fig. 930—Jr. Type ROTO-RAYS

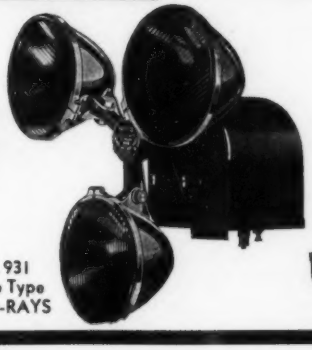


Fig. 931 Large Type ROTO-RAYS

Fig. 950—Moto-Ray

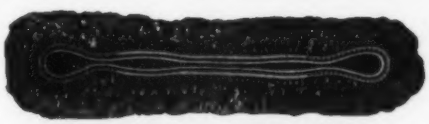
Fig. 935—Buckeye Junior Whistle

EDDY
Fire Hydrants

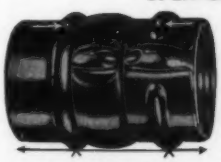
Are given preference by so many fire protection and water works men because they know that more than half a century of experience goes into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.



This is the new LIGHT WEIGHT BI-LATERAL FIRE HOSE



This hose will stand 900 pounds pressure and weighs but 45 pounds to the section uncoupled.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze), with the swivel-protecting feature.

This coupling will stand several expansions and can be used over and over again, saving your city at least 20c to 30c per foot on future hose purchases.

When in the market, let us show you that we can give you the best service obtainable for the least money.

BI-LATERAL FIRE HOSE COMPANY
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SPECIFY FIRE PUMPS HALE CONSHOHOCKEN PA **HALE**

because every Hale pump, centrifugal or rotary, is the result of constant laboratory and field research.

Constant research results in constant improvement.

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Write today for the Catalog and Folders on the complete line of Hale Pumps.

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Air-Cooled or Water-Cooled
Powered Apparatus

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FIRE HOSE

A complete line, including
Wax Treated - Solid Multiple Woven
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Single and Double Jacket Hose

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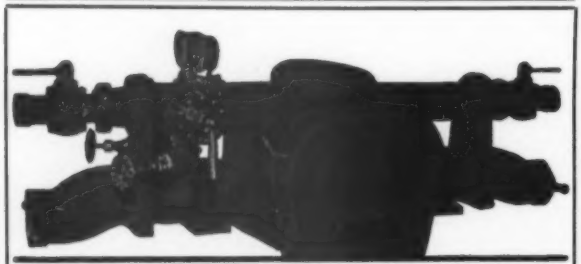
HEWITT RUBBER CORPORATION
BUFFALO, N. Y.
"Territories Available"

HARRINGTON
FA-20
FIRE ALARM BOX

A high quality box in every detail. Inner and outer shells and the movement case are of cast aluminum. This makes for lighter weight, long service and freedom from corrosion. Positive in action, non-interfering of the shunt and successive type. Doors are quick acting. We will furnish any type door to meet specific requirements.

Send today for Bulletin 20 and prices.

HARRINGTON SIGNAL CO., Moline, Ill.



NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

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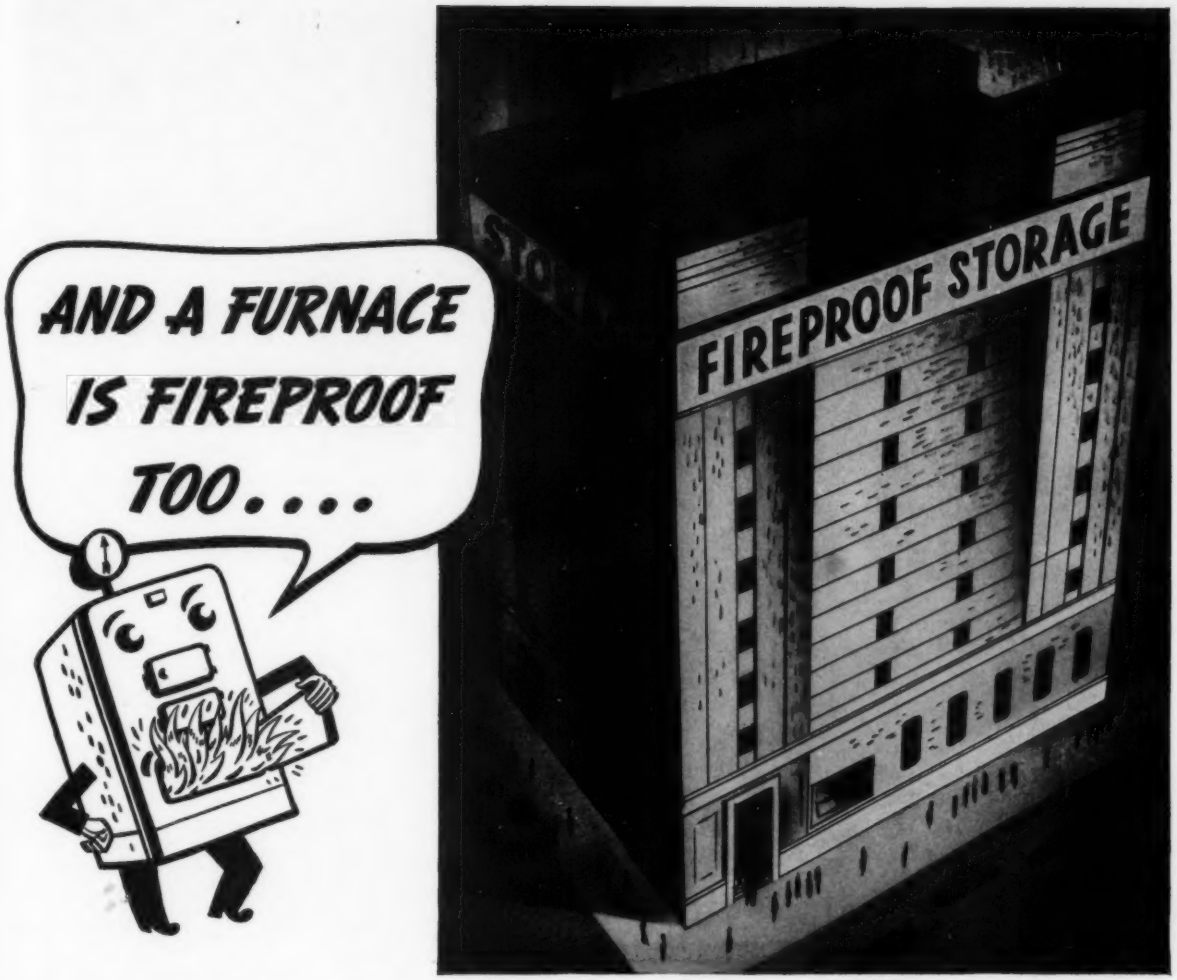

The steel and concrete of a "fireproof" building cannot burn. But *what's inside* that steel and concrete *can burn*...and when fire gains headway in such structures, they become in effect large-scale furnaces!

Countless cases of disastrous losses to contents, with consequent interruption of business, in all types of fire resistant structures, are eloquent proof of the fact that—until a way is found to fireproof the contents of buildings—the two fundamental principles of effective fire protection will remain the same: prompt discovery of fire, and prompt and accurate alarms.

To assure prompt discovery of fire, and prompt and accurate alarms, A.D.T. provides two Automatic Fire Detecting and Reporting Systems:

Sprinkler Supervisory and Waterflow Alarm: (for sprinklered buildings). Makes the sprinkler an automatic fire alarm, automatically summoning the fire department the instant a sprinkler head opens, or when a serious leak occurs, thereby minimizing fire and water damage. Also maintains an automatic check on shut-off valves and other points controlling the supply and distribution of water.

Aero Automatic Fire Alarm: (for unsprinklered buildings, or in conjunction with sprinklers). Automatically detects fire *when it starts,* and automatically summons the fire department.

If there are any establishments in your territory—"fireproof" or otherwise—which, in your opinion, need automatic protection, please let us know and we shall be glad to consult the owners about A.D.T. Protection. Your confidence will, of course, be respected. Booklets describing A. D. T. Services are available upon your request.

A. D. T. AUTOMATIC FIRE DETECTING AND REPORTING SYSTEMS

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH CO.** *155 Sixth Avenue, New York, N. Y.*

CENTRAL STATION OFFICES IN ALL PRINCIPAL CITIES OF THE UNITED STATES

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Electric Protection Services

AGAINST FIRE · BURGLARY · HOLDUP

A NATION-WIDE ORGANIZATION

FOR AMERICA'S PREPAREDNESS
NOW is the time for you to organize, develop, and thoroughly rehabilitate your fire defenses!
Are they adequate? Especially your Fire Hose?
Do you have enough on hand so that if fire suddenly broke out in 10 or 20 or 30 different places you could keep it under control?
The people of your community depend upon YOU!
Check over your reserve fire hose now! Is it in good condition?
Follow the plan of your Federal Government and be prepared!
NOW IS THE TIME!
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